

AD _____

COOPERATIVE AGREEMENT NUMBER DAMD17-97-2-7006

TITLE: Telepsychiatry

PRINCIPAL INVESTIGATOR: Flynn O'Malley, Ph.D.

CONTRACTING ORGANIZATION: The Menninger Clinic Incorporated
Topeka, Kansas 66601-0829

REPORT DATE: September 1998

TYPE OF REPORT: Final

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for public release;
distribution unlimited

The views, opinions and/or findings contained in this report are
those of the author(s) and should not be construed as an official
Department of the Army position, policy or decision unless so
designated by other documentation.

REPORT DOCUMENTATION PAGE

*Form Approved
OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED	
	September 1998	Final (1 Jul 97 - 30 Sep 98)	
4. TITLE AND SUBTITLE		5. FUNDING NUMBERS	
Telepsychiatry			
6. AUTHOR(S)		DAMD17-97-2-7006	
O'Malley, Flynn			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)		8. PERFORMING ORGANIZATION REPORT NUMBER	
The Menninger Clinic Incorporated Topeka, Kansas 66601-0829			
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012			
11. SUPPLEMENTARY NOTES		19981118 059	
12a. DISTRIBUTION / AVAILABILITY STATEMENT		12b. DISTRIBUTION CODE	
Approved for public release; distribution unlimited			
13. ABSTRACT (Maximum 200 words)			
Limitations in available funding changed the scope of work of the proposed Cooperative Agreement. Accordingly, The Menninger Clinic conducted surveys to assess the need for and use of telemedicine services to support the MHS in three TRICARE regions. The Lead Agents for these TRICARE regions represented the Army, Air Force, and Navy respectively. Menninger designed surveys to assess behavioral health services in the three TRICARE regions and define the role of telepsychiatry with the Military Health System (MHS). The survey indicated a need for a comprehensive plan for implementation of behavioral health services using telemedicine applications. The Lead Agent offices and MTFs expressed enthusiasm for telepsychiatry and a growing familiarity with its applications.			
14. SUBJECT TERMS		15. NUMBER OF PAGES	
Telepsychiatry, Telemedicine, Behavioral Health Services, Mental Health Services, TRICARE		68	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	Unlimited

FOREWORD

Opinions, interpretations, conclusions and recommendations are those of the author and are not necessarily endorsed by the U.S. Army.

Where copyrighted material is quoted, permission has been obtained to use such material.

Where material from documents designated for limited distribution is quoted, permission has been obtained to use the material.

Citations of commercial organizations and trade names in this report do not constitute an official Department of Army endorsement or approval of the products or services of these organizations.

____ In conducting research using animals, the investigator(s) adhered to the "Guide for the Care and Use of Laboratory Animals," prepared by the Committee on Care and Use of Laboratory Animals of the Institute of Laboratory Resources, National Research Council (NIH Publication No. 86-23, Revised 1985).

For the protection of human subjects, the investigator(s) adhered to policies of applicable Federal Law 45 CFR 46.

In conducting research utilizing recombinant DNA technology, the investigator(s) adhered to current guidelines promulgated by the National Institutes of Health.

In the conduct of research utilizing recombinant DNA, the investigator(s) adhered to the NIH Guidelines for Research Involving Recombinant DNA Molecules.

In the conduct of research involving hazardous organisms, the investigator(s) adhered to the CDC-NIH Guide for Biosafety in Microbiological and Biomedical Laboratories.

Karen Deacon 8/28/98
PI - Signature Date

TABLE OF CONTENTS

INTRODUCTION	3
<i>Background.....</i>	<i>3</i>
TELEPSYCHIATRY DEFINED	4
ASSUMPTIONS	4
<i>Potential Value</i>	<i>4</i>
<i>DOD Strategic Plan.....</i>	<i>5</i>
<i>Trends</i>	<i>5</i>
<i>Application</i>	<i>6</i>
PROPOSAL	6
RESEARCH METHODOLOGY	8
<i>Direct Interviews</i>	<i>9</i>
<i>Survey</i>	<i>9</i>
<i>Other Research</i>	<i>10</i>
FINDINGS AND OBSERVATIONS	12
<i>Results.....</i>	<i>13</i>
<i>Figure #1- Regional Survey.....</i>	<i>13</i>
<i>Clinical Services</i>	<i>13</i>
<i>Referral facilities</i>	<i>14</i>
<i>Telemedicine/Telepsychiatry Applications</i>	<i>14</i>
<i>Technical Services</i>	<i>15</i>
SUMMARY	15
CONCLUSIONS.....	16
APPENDIX 1: LITERATURE AND REFERENCES.....	19
APPENDIX 2: DISTRIBUTION LIST	28
APPENDIX 3: INITIAL CONTACT LETTER (SAMPLE)	34
APPENDIX 4: INITIAL CONTACT LETTER TO LEAD AGENT OFFICES (SAMPLE)	36
APPENDIX 5: FOLLOW UP LETTER TO PARTICIPATING ORGANIZATIONS (SAMPLE)....	37
APPENDIX 6: FOLLOW-UP LETTER TO NON-RESPONDING CONSULTANTS TO THE SURGEON GENERAL (SAMPLE).....	38
APPENDIX 7: FOLLOW-UP LETTER TO PARTICIPATING LEAD AGENTS (SAMPLE)	39
APPENDIX 8: FOLLOW-UP LETTER TO NON-PARTICIPATING LEAD AGENTS (SAMPLE)40	40
APPENDIX 9: TELEPSYCHIATRY SERVICES SURVEY	41
PRIMARY CARE A – ONLY BASIC OUTPATIENT MENTAL HEALTH SERVICES AVAILABLE – DELIVERED BY PRIMARY CARE MANAGERS. CHALLENGING CASES ARE REFERRED TO A HIGHER LEVEL FACILITY. NO INPATIENT SERVICES.....	42
ACTIVE DUTY PERSONNEL.....	42

PSYCHIATRIC NURSING	43
RESIDENTIAL SERVICES	45
OUTPATIENT SERVICES	45
INDIVIDUAL THERAPY	45
SECTION 2 OPINIONS ON TELEPSYCHIATRY – SHOULD BE COMPLETED BY THE FACILITY'S CLINICAL POC	46
SECTION 3 TELEMEDICINE AND TELEPSYCHIATRY ACTIVITIES/CAPABILITIES – SHOULD BE COMPLETED BY THE FACILITY'S TECHNICAL POC.	49
APPENDIX 10. LIST OF MILITARY TREATMENT FACILITIES IDENTIFIED IN TRICARE REGIONS 3, 6, AND 9	53
APPENDIX 11: DOD MILITARY TREATMENT FACILITY SURVEY RESULTS	56
APPENDIX 12 MENTAL HEALTH WRAP-AROUND DEMONSTRATION PROJECT NOTICE	61
APPENDIX 13 BIBLIOGRAPHY	64
APPENDIX 14 LIST OF PERSONNEL RECEIVING PAY FROM THIS EFFORT	65

Introduction

The Menninger Clinic conducted a preliminary survey for the Department of Defense of Telepsychiatry services being delivered across the Military Health System (MHS). The Cooperative Agreement was established to study the practical applications of telemedicine for the delivery of psychiatric services to U.S. military service members. It intended to evaluate the potential for telepsychiatry to enhance the efficiency of military treatment assets and use of resources.

Telepsychiatry offers opportunities for improving the quality of military training, operations, and readiness by providing global physician-level support and patient management. It provides the tools for more comprehensive clinical assessment, continuity of care, easier deployment of service members, and fewer disruptions to training, operational cycles, and mission completion.

The Menninger Foundation, a Kansas nonprofit corporation (the “Foundation”), with origins dating to 1919, is a leading institution in the field of mental health. Located in the vicinity of Topeka, Kansas, the Foundation, through The Menninger Clinic, offers a broad range of psychiatric and neurological diagnostic and treatment services. Other programs include mental health education, research, and prevention.

The Foundation and its healthcare programs have a long-standing reputation for quality and innovation in psychiatric treatment. Inpatient and outpatient psychiatric services provided to children, adolescents, and adults are the core of Menninger. Services include a 95-bed hospital for adults and a 48-bed hospital for children and adolescents. More than 325 clinicians, including psychiatrists, neurologists, internists, psychologists, social workers, and nurses provide outpatient and inpatient treatment for more than 4,850 persons annually. During 1994 the Clinic’s patients represented 44 states and 11 nations.

Background

The Menninger Clinic is a national leader in telepsychiatry. An initial proposal was designed to set up a comprehensive telepsychiatry test bed and an integrated behavioral health services delivery system in the TRICARE Central Region. The Medical and Advanced Technology Management Office (MATMO) had negotiated with Menninger from 1995 to 1997 on designing and implementing such a model demonstration program for telepsychiatry that included Menninger as a provider site. Consistent with the expressed interests of MATMO, a comprehensive three-year proposal for three million dollars was submitted in 1996 to be conducted under a Cooperative Agreement.

Limitations in available funding changed the scope of work after establishment of the Cooperative Agreement. Accordingly, The Menninger Clinic conducted surveys to assess the need for and use of telemedicine services to support the MHS in three TRICARE regions. Menninger consulted with the Telemedicine and Advanced Technology

Research Center (TATRC), formerly MATMO, and selected Regions 3, 6, and 9 as sites for the surveys. The Lead Agents for these TRICARE regions represented the Army, Air Force, and Navy respectively. The three regions appeared to have mature TRICARE programs and active telemedicine initiatives.

Menninger proposed to design surveys to assess the impact of the conversion by DOD to TRICARE on the delivery of behavioral health services and define the role of telepsychiatry within the Military Health System (MHS). It offered to identify the Military Treatment Facilities (MTFs) within the regions, contact the commanders of those facilities, provide surveys to their selected points of contact, and compile the data from the surveys.

The first step has been a survey of the existing services and projects in military treatment facilities (MTFs) and by the TRICARE contractors. The survey serves as a basis for planning and discussion by leaders of the MHS for more comprehensive programs in behavioral healthcare. Funding limitations have constrained the breadth of the current survey. The survey and accompanying interviews give a snapshot of telepsychiatry that is useful for designing more thorough demonstration projects and studies.

Telepsychiatry Defined

Telepsychiatry is an emerging discipline within the field of Telemedicine.

Assumptions

Potential Value

The Department of Defense incurs substantial expense with personnel that cannot be deployed or transferred for health reasons. Often, a permanent change of station (PCS) will be cancelled because it disrupts ongoing healthcare and imposes a significant cost on DOD. In part, the Exceptional Family Member Program (EFMP) program was designed to accommodate the disruptions in PCSs because of healthcare requirements.

Telepsychiatry provides the opportunity for service members and their families to receive treatment in remote sites from behavioral health providers at another location. This potential is vital when patients are asked to transfer to locations where access to qualified behavioral health professionals is limited or absent altogether. Such transfers impose great hardship and disrupt unit assignments and operations.

Telepsychiatry can reduce the time required to access routine care. Service members or their families requiring specialized behavioral healthcare at large bases such as Twenty-Nine Palms, California, must travel to the nearest regional medical center and lose an entire day's work or training for a one-hour appointment. For acute cases

at remote duty stations, this loss of work time can total several days a month. Coordination of cases between specialist and referring provider does not occur. With telepsychiatry, patients can be “seen” in their local clinic with minimal loss of work or training time. Specialty consultation can be offered to primary care physicians for appropriate cases and minimize the burden on the patient, family, and organization.

Telepsychiatry offers the opportunity to extend mental health services even with constrained fiscal resources. Requirements for behavioral health services have increased with progressive downsizing of the active duty forces and greater number of deployments. Sharp reductions in payments for mental health services across TRICARE regions have generated concerns over denial of care, quality, and access. Patients perceive gaps in treatment and availability of services in local areas. Telepsychiatry provides capabilities for filling those gaps and providing wrap-around services that have been cut with the reductions in reimbursement to mental health providers.

DOD Strategic Plan

The Department of Defense (DOD) has supported broad initiatives in telemedicine. The Government Accounting Office (GAO) Report of February 1997 identifies the DOD as the largest federal investor in telemedicine with \$262 million for FY 94-96 and a leader in developing this technology. DOD has the capability to forge a national strategy in telemedicine. The GAO has recommended that DOD develop a departmental strategy as a first step. Such a strategy would include:

- Clear definitions of the scope of telemedicine in DOD
- Established goals, objectives, and identified actions
- Prioritized near- and long-term investments
- Clear roles of DOD oversight organizations.

Trends

Important trends in military medicine and healthcare delivery across the nation support an increasing application of telepsychiatry. The military continues to downsize its force and likely undertake another base closure. Each of the services could reduce their medical force to at least half of their current size. In general, the burden of healthcare delivery is shifting even more to contractors and imposes a greater cost on DOD. The military installations are located in rural and semi-rural areas with a relative shortage of specialty and referral services. Mental health services suffer particularly in these areas. Managed care is suffering from growing criticism. Current legislative proposals highlight the shortfalls in services, denial of care, and restrictions on choice by patients. The TRICARE contracts epitomize the

deficiencies with managed care that are becoming increasingly apparent. A number of managed care companies are reporting lower profits and significant losses as the appeal for their “products” wanes. Payers are not selecting capitated plans and demanding more choice in picking their providers. The demand for specialty care is growing as the patient population ages and needs more sophisticated care for their problems. Coupled with an explosion in medical treatments and pharmaceuticals, the appeal of primary care may fade completely. Patients want the “expert” caring for them with the latest treatments.

Application

The mal-distribution of healthcare resources and providers strengthens the appeal of telemedicine. Behavioral health services represent at this time an inequity in the distribution of specialty services and adequate care for the average service member and family. There has been criticism of the TRICARE contractors for drawing down services so significantly that many patients are denied adequate care. Furthermore, the TRICARE contractors do not have, as part of their mandate, the incentive to develop telepsychiatry capability to augment their menu of services. In addition, they may not yet fully realize the potential for telepsychiatric approaches to improve the efficiency of their behavioral health services. The MHS has the opportunity of exercising greater oversight of the TRICARE contractors and supporting the implementation of telemedicine programs that will help mitigate the shortage of mental health services overall, and particularly in remote locations. A good demonstration of the value of telepsychiatry would significantly enhance the overall quality of healthcare to service members and their families, and most particularly in remote sites. The DOD has the opportunity to seize the leadership in telepsychiatry to help correct the potential of growing deficiencies in adequate mental health services.

Proposal

This proposal represents a modified statement of work (SOW) based on revisions to the original Cooperative Agreement. Menninger agreed with TATRC to perform all activities within a twelve-month performance period and a single funding cycle.

Menninger proposed to conduct surveys and interviews to assess the impact of the DOD conversion to TRICARE on the delivery of behavioral health services to active duty members, their families, and military retirees. In doing so, Menninger offered to assess the implementation of telepsychiatry services across the MHS in military treatment facilities and by TRICARE contractors. Menninger offered to provide survey tools and interview formats as enumerated:

- Develop customized tools for gathering data in personal interviews

- Conduct interviews with TRICARE behavioral health contractors and subcontractors
- Conduct interviews with DOD psychiatry and behavioral health consultants (regional, surgeons general, etc.)
- Conduct interviews with existing DOD telepsychiatry providers
- Assemble data collected into summary report.

Menninger proposed to conceptualize and define the role of telepsychiatry within the behavioral health services delivery system of DOD for all beneficiaries including active duty, family members, and retirees. It proposed to perform key tasks including:

- Identify issues related to scheduling, information management, continuity of care, and administrative and cost management as they apply to telepsychiatry
- Develop scheduling mechanisms compatible with services delivery to active duty members, as well as families and retirees
- Develop standardized records for use in delivering telepsychiatry
- Develop clinical protocols which identify patients which can appropriately be managed by telepsychiatry
- Conceptualize the integration of telepsychiatry into the larger DOD telemedicine delivery system
- Propose a DOD system-wide telepsychiatry implementation model.

Shortly after initiating the project, both Menninger and TATRC recognized that these tasks could not be accomplished with the limited funding and time available to Menninger. Accordingly, further modifications occurred during the course of the funding cycle.

Proposed revisions included:

- Assess the degree of implementation of telepsychiatry within the new TRICARE behavioral health services delivery system:
 - Identify and target three TRICARE regions for participation in a study

- Solicit and gain support from Lead Agent offices for participation in a study
- Conduct interviews with selected TRICARE behavioral health contractors or subcontractors
- Conduct interviews with selected DOD psychiatry and behavioral health consultants (regional, surgeons general, etc)
- Conduct interviews with selected DOD telepsychiatry providers
- Assemble information into summary reports.
- Conceptualize and define the role of telepsychiatry within the DOD behavioral health services delivery system, including its role for both active duty members, retirees, and their families:
 - Develop a survey for administration to all primary care and behavioral health facilities and providers in the selected regions that assesses the:
 - a. Need for behavioral health services and utilization including referral patterns.
 - b. Knowledge of healthcare providers and their perceptions regarding telepsychiatry applications and utility.
 - c. Current status of telemedicine / telepsychiatry technology deployed or planned in surveyed facilities.
 - Administer survey, collect, collate, assimilate and report responses to the surveys and interviews.
 - Use the data collected to conceptualize the integration of telepsychiatry into the larger DOD telemedicine delivery system.
 - Propose next steps in implementing a DOD system-wide telepsychiatry model.

Menninger agreed to prepare a final summary of activities and a written report of results. The proposed revisions were agreed upon by TATRC and Menninger and constitute the final deliverables.

Research Methodology

Direct interviews, surveys, and research of other existing data relevant to the agreement gathered data for this Cooperative Agreement.

The first phase of data collection included identifying the different regions and the relevant agencies and persons. Menninger contacted by letter the TRICARE Regional Lead Agents and Consultants to the Surgeons General to solicit their participation in the Cooperative Agreement. Response rate was poor to moderate. Only half of the fourteen Consultants contacted responded to the introductory letters. Only 36% of the Lead Agents responded (See Appendix 1). Follow up letters resulted in two additional responses from the Consultants and raised the response rate to 64%. One response from the Lead Agents raised the response rate to 45%. Attempts to solicit cooperation from the TRICARE Contractors and Subcontractors for Region 7/8 did not yield any results. Appendixes 2-9 are copies of the letters sent to the Consultants, Lead Agents, Contractors, and Subcontractors.

The contracting officer's representative (COR) and the project team at TATRC recommended further revision of the Cooperative Agreement in consideration of the initial obstacles to initiating the study. TATRC recommended that Menninger focus the study on select TRICARE regions. TATRC and Menninger selected Regions 3,6, and 9. Most of the direct data comes from these three regions. The general data collected is not specific to these regions.

Direct Interviews

These interviews were conducted either in person, by telephone, or by videoconference calls.

- Site Visit to Washington, DC/Bethesda, MD on 11-13 Nov 97.
- DOD Project Conference Call on 9 Jan 98.
- Site Visit to TRICARE Region 3 Headquarters Fort Gordon, GA on 14 Jan 98.
- Site Visit to Wilford Hall Medical Center, Lackland AFB on 5 Feb 98.
- Site Visit to Brooke Army Medical Center on 5 Feb 98.
- Meeting with Consultant to the Army Surgeon General on 19 Feb 98 .
- Conference call with TRICARE Region 6 Behavioral Health Services Subcontractor.

Survey

Surveys were sent to TRICARE Regions 3, 6 and 9. TATRC and Menninger selected these regions because they had some level of active telemedicine programs. Conducting the survey required identifying the military treatment facilities (MTFs) in each of the regions. The Offices of the Lead Agents and the regional headquarters confirmed the list of MTFs. Appendix 17 shows a complete list of the Military Treatment Facilities identified and contacted to participate in the survey.

Menninger contacted the commanders of the MTFs to solicit their cooperation for the survey and to obtain clinical and technical Points of Contact (POCs). Appendix 18 is a copy of the letter sent to the Military Treatment Facility Commander.

Menninger then confirmed POCs and contact information with the respective MTFs. An introduction letter (see Appendixes 19 & 20) and survey were sent to the designated POCs with a requested return date of 5 working days. (Note: In Region 9, some surveys were sent directly to the POCs, and the Office of the Lead Agent sent others). The survey was designed to take no more than 10 minutes to complete. Completed surveys were faxed directly to the Menninger Center for Telepsychiatry, except in Region 9 where some were faxed directly back to Menninger and others were sent to the Office of the Lead Agent and then forwarded to the Menninger Center for Telepsychiatry. A copy of the survey is available in Appendix 21.

Other Research

Menninger reviewed extensively relevant literature on telemedicine projects in DOD, mental health projects, and implementation of TRICARE. A summary of that review is listed:

- Other Reports:
 - Final Report to Congress on the Fort Bragg Child and Adolescent Mental Health Services Demonstration.
 - Status of Telemedicine in the Department of Defense.
- Other DOD Telemedicine Projects (review of existing documentation):
 - List of DOD Telemedicine Projects.
 - Project Akamai (Tripler).
 - Center for Total Access (CTA).
- Online Resources: A large volume of online material was reviewed for any information that was pertinent to the Cooperative Agreement. Below is a list of the articles relevant to the project. Review of the various online news articles indicated that there was strong provider dissatisfaction with the TRICARE system. TRICARE beneficiaries also indicated some dissatisfaction with TRICARE in particular to claims processing and access to care. However, there was an indication that quality of care had improved.
 - Online News Articles:

TRICARE: How far it's come, where it's going (Army Times Health Supplement).

Prime promises access to the service you need (Army Times Health Supplement).

Military Medical System Ordered to Comply with National Standard (Army Times Health Supplement).

Mental Health Care Costing Prime Patients More (Army Times) Health Chief Nominee Staunchly Supports TRICARE (Army Times).

Pentagon Leaders Pledge Continued Health Care For All Families, Retirees (Army Times).

Doctors Vent Frustration with TRICARE (Army Times).

DOD Health Care Survey Results Announced (DefenseLink 9 Sep 96).

Telemedicine Comes to Naval Hospital Corpus Christi.

Department of Defense Sizes Up Managed Care.

Telemental Health is of Growing Interest to DOD Medics (Exopa Terra News).

Colorado doctors flee TRICARE (Navy NewsBase).

Users Happy with TRICARE Latest Survey Reveals (American Forces Press Service).

Complaints prompt review of TRICARE policies (Navy NewsBase).

Mental Health Wrap-Around Demonstration Project (Federal Register Vol. 62, No. 128).

- TRICARE Forum. This is an online Forum provided by the TRICARE Management Activity related to TRICARE Issues. Many of the issues raised in the Forum by beneficiaries had to do with lack of access to care, poor quality of care, and problems with claims processing.

Findings and Observations

The survey accomplished the limited objective of assessing the level of psychiatric services delivered at the military treatment facilities (MTFs), the judgments of providers on the potential of telepsychiatry, and the scope of active telepsychiatry services. A summary of the survey data includes:

- Considerable investment has been made in high-end technology for telemedicine in some MTF's without a strategic plan. This is a classic example of *technology in search of an application*.
- Major technical problems were noted at several MTF's preventing the use of systems for extended periods.
- Interviewees expressed hope that this report would make recommendations about where further effort should be focused within DOD to implement telepsychiatry.
- Interviewees also expressed hope that this report would identify current programs within DOD, which should be capitalized upon.
- It was suggested that the Army's 'Specialty Response Teams' should be considered as potential areas for telepsychiatry development.
- Some commanders are frustrated by the seemingly unresolvable technical difficulties with equipment already on hand. This has resulted in a general negative attitude towards telemedicine.
- Several officers commented that properly functioning telemedicine equipment could support residency programs participating in didactic course work at local affiliated medical schools. Considerable time and travel could be avoided.
- Virtually all (*except Region 3*) sites visited were very disillusioned by the high-end technology which is too expensive and unreliable. The prospect of using low end, affordable technology had not occurred to them. Considerable interest in this idea was found.
- In Region 3, the Center for Total Access (CTA) has a Strategic Plan for the deployment of telemedicine including telepsychiatry. The CTA also employs low-end technology where appropriate.
- Complaints where wide spread that there is no central funding within DOD for telemedicine.

- Despite the frequent disillusionment with telemedicine due to bad or unsuccessful experiences, there is a general agreement that there is great potential for these technologies if properly employed.

Results

Data from the surveys were inputted as received, with running totals kept of the responses. Several reminders were provided to the POCs, by fax and telephone, to return the completed surveys. Response rates varied by region. Region 3 had an 83% response rate for clinical and 86% for technical surveys. Region 6 had a 100% response rate for both clinical and technical surveys. Region 9 had a response rate of 72% for clinical surveys and 58% for technical surveys.

The Chart below shows the summary of the responses to the survey.

Figure #1- Regional Survey

**DoD TRICARE Regions 3, 6 and 9
Contact Summary**

As of 5/27/98

	R3	R6	R9	R9 (AP)	R9 total	Total
# of facilities identified in this region	29	25	26	10	26	80
# of facilities to be surveyed	27	25	20	10	20	72
# of commanders contacted	13	24	17		17	54
# of commanders responded	11	19	15		15	45
# of facilities w/designated CPOCs	23	19	13	10	18	60
# of CPOC surveys sent	23	19	13	10	18	60
# of CPOC surveys returned	19	19	9	4	13	51
# of facilities w/designated TPOCs	21	18	12	0	12	51
# of TPOC surveys sent	21	18	12	0	12	51
# of TPOC surveys returned	18	18	7	0	7	43
% of facilities that provided CPOCs	85%	76%	65%	100%	90%	83%
% of facilities that provided TPOCs	78%	72%	60%	0%	60%	71%
% of facilities w/completed clinical	70%	76%	45%	40%	65%	71%
% of facilities w/completed technical	67%	72%	35%	0%	35%	60%
% of responses for CPOCs	83%	100%	69%	40%	72%	85%
% of responses for TPOCs	86%	100%	58%	0%	58%	84%

Clinical Services

The data collected represent 54 facilities of which only 43 have complete Clinical and Technical results. The complete summary of the data collected is available in Appendix 22. The data reveal the following.

- Of the 54 facilities surveyed, 89% provide some level of behavioral health services.
- Of the 49 that completed Clinical Surveys, 6% are full tertiary care facilities.
- None of the 49 facilities provide residential services, and only 4% provide inpatient services.
- The top 5 categories of diseases that the MTFs referred to other facilities are mood disorders (76%), substance related disorders (67%), personality disorders (53%), schizophrenia and other psychotic disorders (51%), and anxiety disorders (47%).
- The MTFs referred patients to other facilities for inpatient services (82%), outpatient services (49%), adult psychiatry (49%), child psychiatry (41%), and individual therapy (41%).

Referral facilities

- 76% of the MTFs list another MTF as their first referral source.
- 41% indicated the distance to first referral source was less than 25 miles, while 24% indicated distance to first referral source was greater than 150 miles.
- The majority (85%) indicated they were satisfied or highly satisfied with their referral facility; only a very small percentage (6%) indicated they were unsatisfied with their referral facility.

Telemedicine/Telepsychiatry Applications

Although only 38% of the respondents indicated that they were knowledgeable about telemedicine, the majority agreed that telemedicine could do the following:

- Increase individual/unit readiness (61%).
- Decrease overall cost of care (53%).
- Maintain or increase quality of care (54%).
- Increase access to care (69%).
- Be used by specialists to conduct initial assessments (81%).

- Triage patients to appropriate facilities (87%).
- Assist primary care providers in developing treatment plans (85%).
- Educate/train primary care providers (86%).
- Deliver care to the patients in home communities (71%)

However, the majority did not agree with the following statements:

- Conduct on-going individual therapy (45% agreed, 39% disagreed).
- Conduct on-going group therapy (27% agreed, 43% disagreed).

Technical Services

- 46% of the facilities have POTS based videoconferencing capabilities.
- 35% of the facilities have 128 KBPS videoconferencing capabilities.
- 37% of the facilities have 384 KBPS videoconferencing capabilities.

Only 13% of the facilities are conducting any clinical telepsychiatry. Only 41% indicated any plans to implement telepsychiatry applications

Summary

Menninger and TATRC agreed to innumerable changes to the original statement of work (SOW). Select items from the original SOW were addressed in the conducted study. A summary of the deliverables to which TATRC and Menninger agreed follows:

- Menninger designed a customized survey of mental health and telepsychiatry services that it sent to 72 facilities. In cooperation with MRMC, it identified the Lead Agent offices and MTFs in Regions 3, 6, and 9. Menninger contacted the respective Lead Agent offices, solicited their cooperation, and conducted the study with their approval. BG Zajtchuk sent a letter of introduction encouraging full participation in the study.
- Menninger contacted commanders of 54 MTFs and interviewed 24 different commanders, lead agent staff, behavioral health consultants, and telepsychiatry staff.

- Menninger assessed the degree of implementation of telepsychiatry within the TRICARE behavioral health services delivery system. Only 38% of the respondents declared any knowledge of telemedicine, although they identified a broad range of potential capabilities. This finding contrasts with the recognition that the surveyed MTFs were located in TRICARE regions with dedicated telemedicine programs.
- The TRICARE contractors and subcontractors did not provide data for the study. The military staff reported anecdotally that none of the TRICARE subcontractors had active telepsychiatry programs and did not indicate any plans to develop programs or applications of telemedicine services.
- The DOD and regional consultants indicated an interest in developing behavioral health telemedicine programs, but had lagged in implementation of initiatives. They sought a substantial pilot program that demonstrated the benefits and established preliminary protocols and assessment tools.

The Lead Agent Offices indicated enthusiasm and interest in the benefits of telemedicine, especially in areas of behavioral health.

There was insufficient data to systematically specify the role and scope of telepsychiatry within the DOD Medical Health System and its contribution to a greater telemedicine delivery system. However, there was easily enough data to establish the need for a more detailed outcome and benefits analysis. Military referral services were assessed, but information from the TRICARE subcontractors was not available. The deployment of telepsychiatry services was isolated to a limited group of MTFs. These MTFs had developed good plans for deployment of a wider range of behavioral services in the future. The plans recognized the need to integrate telepsychiatry into broader telemedicine delivery systems.

Conclusions

DOD lacks a comprehensive plan for implementation of behavioral health services using telemedicine applications. No strategic plans exist at the offices of the Lead Agents, mental health subcontractors, or the Assistant Secretary of Defense for Health Affairs [ASD (HA)] for the identification, implementation, or evaluation of telepsychiatry in an integrated behavioral health program. Some of the TRICARE Lead Agent offices have designed pilot programs to test the utility of telepsychiatry and indicate enthusiasm for its potential and use. The subcontractors express much less knowledge of the realistic application of telepsychiatry services and have not identified opportunities for its use with the Lead Agents or MTFs. The Lead Agents are not able to engage the mental health subcontractors in clinical partnerships for furnishing behavioral health services including telepsychiatry.

Neither the Lead Agents nor the subcontractors have a clear assessment of the existing and future needs for mental health services. The TRICARE Management Agency (TMA) is developing indicators for measuring the quality and adequacy of behavioral health services, but little data is available to DOD to identify gaps or shortcomings. Current information does not assist the Lead Agent offices or mental health subcontractors to evaluate behavioral health services, clinically or financially, or assess the need for telepsychiatry.

The current TRICARE contracts do not provide incentive to the mental health subcontractors to establish telepsychiatry programs. The mental health providers and subcontractors indicate they do not have the investment capital or flexibility for establishing such programs. The proprietary nature of the TRICARE bids and subcontracts limits the ability of the Lead Agents to coordinate developing telepsychiatry programs with the mental health subcontractors. Because the mental health subcontractors lack incentive and experience in telepsychiatry, the military leadership must guide and direct the contractors in developing and providing alternative services including telepsychiatry.

Important trends in military medicine and healthcare delivery indicate the need to design more innovative and efficient ways to provide service. The military health departments continue to downsize and face continued budget cuts. The burden of healthcare delivery is shifting to the TRICARE contractors for family members and retirees and MEDICARE for the retirees over age 65. A large number of military installations are still located in rural and semi-rural areas with a relative shortage of specialty and referral services. Military personnel face a growing number of deployments and continued reorganization to meet the demand for worldwide missions. A perception of increasing stress on military personnel seems to intensify the need for mental health services. Telepsychiatry offers logical solutions to filling the gaps in mental health services, correcting deficiencies, and reaching more patients in dispersed locations.

The military medical departments have sketched out programs for the application of telepsychiatry on deployments and combat missions. The MTFs and TRICARE subcontractors have limited coordination of their services and little joint planning for integrated services, including telepsychiatry, within the bounds of their readiness planning.

Further constraints in fiscal resources will demand that DOD seek opportunities for greater efficiency and effectiveness. A growing tide of criticism of the TRICARE contractors for denial of care and provision of poor quality can be mitigated with broader telepsychiatry services. Cooperation and coordination of services between the MTFs and TRICARE subcontractors becomes vital to implementation of integrated behavioral health services. Telepsychiatry offers *enabling* technology for achieving the synergy of both the direct care system and TRICARE contractors of the DOD Medical Health System.

Most forecasters of national health trends predict a larger market in treatments in brain and mental health disorders. Rather than finding ways to limit services, the

nation, including DOD, should be seeking ways to deliver care more efficiently and economically. An aging population will require treatment for common conditions in the elderly including dementia, depression, and emotional effect of many medications prescribed for medical and surgical disorders.

The GAO has recommended that DOD develop a departmental strategy for the application of telemedicine. Such a strategic plan would focus along clinical lines and demonstrate value in areas such as mental health. Commanders and Lead Agent staffs recognize that DOD has allocated significant funding to telemedicine and to developing systems for its clinical application. The MTF commanders encourage DOD to further develops its plan and provide guidance for the implementation of telemedicine applications. A comprehensive strategic plan would tie in the assets of the direct care system and TRICARE providers and hospitals.

A well-conceived pilot program in one region by an experienced provider of telepsychiatry services would provide a good assessment and basis for further proliferation across DOD. A solid pilot program could validate assumptions about the opportunity telepsychiatry offers to provide a full range of behavioral health services to service members and their families in remote locations. The broad availability of good health services becomes a vital “combat multiplier” and strong tool for recruitment. A well-designed project could demonstrate the value of telepsychiatry to fill the gaps and shortcomings in behavioral services perceived by many beneficiaries and imposed by budget limitations. The capability of telepsychiatry furnishes means for Lead Agents and mental health subcontractors to integrate their service delivery.

Training in the applications and value of telepsychiatry systems would assist DOD providers, consultants, and leaders in managing their services. DOD should encourage joint endeavors by the MTFs and the TRICARE subcontractors. A pilot program integrating MTFs and TRICARE providers offers vast potential to the enhancement of behavioral health services across DOD. A series of such pilot programs could constitute the basis for a broad strategic plan by the Office of the ASD(HA) and fulfill the problems identified by the GAO.

Appendix 1: Literature and References

Alimandi L, Andrich R, Porqueddu B
Teleworking In Connection With Technical Aids for Disabled Persons. *J Telemedicine and Telecare*, 1(3): 165-72, 1995.

Allen A, Cox R, Thomas C
Telemedicine in Kansas. *Kans Med* 93(12): Dec 1992.

Allman RM, Smith JP, Curtis DJ, Brahman SL, Maso EC
Potential Contribution of Teleradiology to the Management of Military Radiologist Resources. *Milit Med* 148:897-900, 1983.

Anonymous
Airline Relies On Telemedical Assist for In-flight Emergencies. *Telemedicine: The Monthly Newsletter Of Telecommunications In Healthcare* 3(7): 3 July 1995.

Anonymous
Buyers Must Consider Multiple Factors In Electronic Stethoscope Selection, *Telemedicine: The Monthly Newsletter Of Telecommunications In Healthcare* 3(8): 1, 4 Aug 1995.

Anonymous
Successful Interactive Meeting Held On "Telemedicine in Academia". *Ata News*: 1,2 Sp. 1995.

Anonymous
Information Managers Make Telemedicine A High Priority, Companies Join To Capture Slice Of Cardiac TM Market, Text Showcases Telemedicine In The Future Of Health Care. Colorado Studies Pros and Cons of TM for Prison Network. *Telemedicine: The Monthly Newsletter Of Telecommunications In Health Care* 3(3): 2 Mar 1995.

Anonymous
DOC/NII Grant Applied for Internet Telemedicine; Apple Quick-Time Videoconferencing Used with Cornell's (Free) "Cu See Me" Software for Northeast Internet Tm Trials. *Global Telemedicine Report* 2(7): 7, Jul 1995.

Anonymous
Why MCG Went It's Own Way For Systems Development. *Global Telemedicine Report* 2(10): 10 Oct 1994.

Anonymous
Directing Anesthesia By Remote TV. *Med World News* 15:27, 1974.

Anonymous
FDA Approves Picasso. *Global, Telemedicine Report*: 2 Mar 1995.

Anonymous

Remarks By Governor Zell Miller. Press Conference to Sign Senate Bill 144, March 20, 1992.

Anonymous

TM Down under: The Australian Health Communication Network. *Global Telematics Report* 2(4): 1-3, Apr 1995.

Anonymous

DeBakey Backed MedTel Prepares For Offering In 90-120 Days. *Global Telematics Report* 2(4): 1,7-8 Apr 1995.

Anonymous

Montana Telemedicine Project Opens Videoconferencing Doors To Community. *Telemedicine: The Monthly Newsletter Of Telecommunications In Health Care* 1(3): 1,7, July 1993.

Anonymous

Software Allows Remote Consultations To Be Performed Via Internet. *Telemedicine: The Monthly Newsletter Of Telecommunications In Healthcare* 2 (5): 1,6 May 1994.

Anonymous

Georgia Telemedicine Project Extends Reach Into 25 Homes. *Telemedicine: The Monthly Newsletter Of Telecommunications In Healthcare* 2 (6): 6 Jun 1994.

Anonymous

Desktop Telemedicine: Not Yet Ready For Prime Time. *Telemedicine: The Monthly Newsletter Of Telecommunications In Health Care* 2(12): 1, 3-5 Dec 1994.

Anonymous

Home Health Ed via Interactive TV, Promises NJ Start-Up. *Global Telematics Report* 1(6): 2, Nov 1994.

Anonymous

TM In Texas. *Global Telematics Report* 1(6): 13, Nov 1994.

Anonymous

Telemedicine: An Information Highway To Save Lives. Hearing [No. 132]. Committee On Science, Space And Technology, U.S. House Of Representatives... 103rd Congress, 2nd Session, May 2, 1994. Government Document No: Y 4.Sci 2:103/132

Anonymous

Military Telemedicine Show Pack's 'Em In. *Global Telematics Report*: 3,4 Mar 1995.

Anonymous

Army Establishes Tm Center For Military Applications. CLI And DEC Introduce Joint PC-Based Telemedicine System. Texas Proposal Would Grant ISDN Rate Discount For Rural Telemed. ACHME Okays Category I Credit For In-Room Physician Consults, Telemedicine: *The Monthly Newsletter Of Telecommunications In Health Care* 2 (11): 2, Nov 1994.

Anonymous

Two Bills Demonstrate Dichotomy in Support for Telemedicine on Capitol Hill. Telemedicine: *The Monthly Newsletter Of Telecommunications In Health Care* 3(4): 1,5 Apr 1995.

Anonymous

U.S. Project Updates. *Global Telemedicine Report* 2(4): 11, Apr 1995.

Bashshur RL, Lovett J

Assessment of telemedicine: results of the initial experience. *Aviat Space Environ Med* 48:65-70, 1977.

Baum AZ

Need A Specialist? Tune Him In On TV. *Medical Economics* 47:177+, 1970.

Bennett AM, Rappaport WH, Skinner FL

Introduction (Chapter 1 of Telehealth Handbook: a guide to telecommunications technology for rural health care). *National Center For Health Services Research*: Rockville, MD; 1-4, 1978.

Bennett AM, Rappaport WH, Skinner FL

The Telehealth System Concept [Chapter 2 Of Telehealth Handbook: A Guide To Telecommunications Technology For Rural Healthcare]. *National Center For Health Services Research*: Rockville, MD: 5-9, 1978.

Bennett AM, Rappaport WH, Skinner FL

Paying For Telehealth (Chapter 7 Of Telehealth Handbook: A Guide To Telecommunications Technology For Rural Health Care). *National Center For Health Services Research*: Rockville, MD: 85-90, 1978.

Belmont J, Mattioli L, Goertz K, Ardinger R, Thomas C

Evaluation Of Remote Stethoscopy For Pediatric Telecardiology *Telemedicine Journal* 1(2): 133-148, Sum, 1995.

Benschoter RA, Wittson CL, Ingham CG

Teaching and consultation by television in New York and Nebraska the state psychiatric institutes are using new methods of television transmission to extend their resources to remote state hospitals. *Journal Of Hospital And Community Psychiatry* 16:99-104, 1965.

Besaw Z

Beam Me Up, Doctor. Telemedicine Takes Health Care To The Airwaves, *Tex Med* 92(4): 28-31, Apr 1995.

Bird KT

Telemedicine: Concept And Practice (In: Bashshur, RL (Ed) *Telemedicine: Explorations In The Use Of Telecommunications In Health Care*). *Thomas*: Springfield, IL: 89-112, 1975.

Blasi G, Fioravanti A, Franci A, Marcolongo R

Role of Computerized Telethermography in the Diagnosis of Fibromyalgia Syndrome. *Minerva Med* 85(9): 451-4, Sep 1994.

Brown F

A Survey of Telepsychiatry in the USA. *Journal of Telematics and Telecare* 1(1): 19-21, 1995.

Brown JHU

An experiment in medical communication. *Tex Med* 78:45-46, 1982.

Burghgraeve P, De Maeseneer J

Improved Methods for Assessing Information Technology in Primary Health Care and An Example from Telemedicine. *J Telematics and Telecare* 1(3): 157-64, 1995.

Chan SW, Messick JR

Case Western Reserve Laser Communications Systems [In: Chan, SW; Messick, JR; *Telecommunication In Medical Education And Health Care: Profiles Of 33 Projects*]. Michigan State University: East Lansing: 116-124, 1975.

Cox RH

Telemedicine Reduces On-Call Burden of Rural Physicians: *Telemedicine: The Monthly Newsletter Of Telecommunications In Health Care* 1(6): 8, Oct 1993.

Davidson C

Emory, AT&T Test Telemedicine System. *Atlanta Business Chronicle* 22a; Jun 17-23, 1994.

Davis J

13 Hard-won Lessons In Setting Up A Telemedicine Program: A Report from Upstate New York. *Telemedicine Today: News Of Healthcare Telecommunications* 3(1): 10-11, Win 1995.

Demoor G

Standardization in Medical Informatics in Europe. *Int J BioMed Comput* 35(1); 1-12, Feb 1994.

Dhillon H, Bennet AM

A Cost-Performance Analysis of Alternative Manpower Technology Combinations for Delivering Primary Health Care [MTR-7068]. *Mitre Corporation*: Mclean, VA: 1-209, 1975.

Diseker RA, Michielutte R, Morrison V

An Assessment of Tel-Med Utilization by Physicians and Dentists. *Am J Public Health* 71:1168-1170, 1981.

Doermann AC, Macarthur DW, Walcoff P

Extending the Capabilities of Non-Physician Providers in Isolated Rural Areas: An Investigation of the Potential Impact of Telecommunications-Based Technology [MTR-7068]. *Mitre Corporation*: Mclean, VA: 1-100, 1975.

Engel W III

Old and New Wine In New Bottles: Controlling Dread Disease Through Telemedicine. *Global Telemedicine Report* 1(7): 5-6, Dec 1994.

Engel W III

Towards A Prototype Disease Control Network for the Nations on the Atlantic Rim. *Global Telemedicine Report* : 10-11 Mar 1996

Fisk N, Vaughn J, Wootton R, Harrison M,

Intercontinental Fetal Surgical Consultation With Image Transmission Via Internet (Letter). *Lancet* 341(8860):180-2, Jun 19, 1993.

Foote DR

Satellite Communication For Rural Health Care In Alaska. *J Commun* 27:173-182, 1977.

Fujiwara K

Radio-Medical Services For Seafarers In Yokahama Seamen's Insurance Hospital In The Year 1984. *Bull Inst Marit Trop Med*, Gdynia, 36(3-4):183-186, 1986.

Gillert D

Telemental Health is of Growing Interest to DOD Medics. *Exopa Terra News*: April 1998.

Grigsby J, Kaehny M, Kramer A, Sandberg E, Shaughnessy P, Schlenker R

Analysis of Expansion of Access to Care through Use of Telemedicine and Mobile Health Services. Report 2: Case Studies and Current Status of Telemedicine. *Center For Health Policy Research*: Denver, CO: May 1994.

Grigsby R

Telemedicine Expands Reach Of Psychiatry. *Mental Blocks* 2(2): 1,2 Sum, 1994.

Gunby P

Military Medicine Takes Late Gulf War Hits. Aeromedical Evacuation Improves As A Result. *JAMA* 271 (7): 491 Feb 16, 1994.

Holland K

Telemedicine Comes to Naval Hospital Corpus Christi. *Naval Service Medical News* 96-03: January 25, 1996.

Holloway H, Ursano R, Baum A, Nicogossian A

Disaster Recovery: The USSR-US Space Bridge Benchmark In Satellite Communications for Psychiatric Treatment. *Proceedings of The Eleventh International Conference On Computer Communications*, (P. 649-54).

Houtchens B, and others

Telemedicine and International Disaster Response: Medical Consultation To Armenia And Russia Via A Telemedicine Spacebridge. *[International Telemedicine/Disaster Medicine Conference]*. - Bethesda, MD Dec. 9-11, 1991.

Justice JW

The Quality of Health Care before And After Increasing Accessibility to Health Services for A Rural Southwestern Population. Unpublished Report: 1977.

Justice JW

Evaluation Of A Mobile Clinic In A Rural Health Care System. Unpublished Report: 1978

Kansas Telemedicine Policy Group

Telemedicine: Assessing the Kansas Environment, Vol. 1-4. Vol. 1: 1-99, Health Care Delivery. Vol. 2: 1-35, Policy Issues. Vol. 3: 1-99, Planning Guide. Vol. 4: 1-23, Source Book, 1993.

Lehn A

Australia's Growing Telemedicine Community: A Report from Wagga Wagga And Beyond. *Telemedicine Today: News Of Healthcare Telecommunications* 2 (3): 16-20, Fall 1994.

Lindberg D

HPCC and The National Information Infrastructure: An Overview. *Bull Med Libr Assoc* 83(1): 29-31, Jan 1995.

Linder J Masada C

Frozen Section Diagnosis by Video-telephone (Abstract 317). *Lab Invest* 60:54a, 1989.

Managing for Results: Using the Results Act to Address Mission Fragmentation and Overlap. Appendix I: 3.7.4 in GAO Letter Report, 08/29/97, GAO/AIMD-97-146.

Mattheus R, Noothoren Van Goor J,

The European Community: Standardization in Medical Informatics and Imaging. Comput Methods Programs. *Biomed* 37 (4): 333-41, May 1992.

Merrill IR

Closed-circuit Television In Health Sciences Education. *J Med Educ* 38:329-338, 1963.

Mines M

Using the Telephone in Family Therapy. *Journal of Marital and Family Therapy* 20(2): 175-184, Apr 1994.

Moore M, Coker N

In A TV Age, ACLS (Advanced Cardiac Life Support) Training Through Teleconferencing: *J Emerg Med Serv* 17(9): 65-8, Sep 1992.

Murakami H, Shimizu K, Yamapuioto K, Miliami T, Hoshimiya N, Kondo K

Telemedicine Using Mobile Satellite Communication. *IEEE Trans Biomed Eng* 41(5): J88-97, May 1994.

Murphy RLH, Barber D, Broadhurst A, Bird ET

Microwave Transmission Of Chest Roentgenograms. *Am Rev Respir Dis* 102:771-777, 1970.

National Aeronautics and Space Administration, Uniformed Services University of the Health Sciences, Second International Conference on Telemedicine: Remote Health Care and Disaster Response. September 8-10, 1984.

Pedersen S, Nartviksen G, Haga D

Teleconsultation of Patients with Otorhinolaryngologic Conditions: A Tele-endoscopic Pilot Study. *Arch Otolaryngol Head Neck Surg* 120(2): 133-6, Feb 1994.

Pfitzer J

A Description and Evaluation of a Ten-Station, Highly Utilized Two-way Television Health Network (In: Parker, La Olgren, Ch Teleconferencing Interactive Media). *University Of Wisconsin-Extension*: Madison, WS: 262-2 Feb 1980.

Pisanelli D, Ricci F, Maceratini R

A Survey of Telemedicine in Italy. *J Telemedicine and Telecare* 1(3): 125-130, 1995.

Preston J, Brown FW, Hartley B

Using Telemedicine to Improve Health Care in Distant Areas. *Hosp Community Psychiatry* 43(1): 20-27, 1992.

Rassier M

Telemedicine Applications to Outreach Hemodialysis, *Journal of the American Society of Nephrology* 5(3): 425, Sept 1994.

Rayman RE

Telemedicine: Military Applications. *Aviat Space Environ Med* 63(2): 135-137, 1992.

Reid J

Telemedicine in Montana, Will It Happen? *Proceedings of the First Mayo Telemedicine Symposium*, P. 73-84: Oct. 1-3, 1993.

Richardson M

Global Telemedicine Network to Be Based At Texas Medical Center. *Tex Med* 89(12): 20-21, Dec 1993.

Richardson M

On The Leading Edge: Texas Researchers Are Developing the Next Generation of Medical Technology. *Tex Med* 90(8): 12-16, Aug 1994.

Rodriguez M, Arredondo M, Del Pozo F, Gomez E, Martinez A, Dopico A, A Home Telecare Management System. *J Telemedicine and Telecare* 1(2): 86-94, 1995.

Sanborn DE, Sanborn CJ, Seibert U, Welsh GW, Pyke HF

Continuing Education for Nurses via Interactive Closed-circuit Television, A Pilot Study. *Nursing Research* 22:448-461, 1973.

Sanders JH, Sasmor L, Natiello TA

An Evaluation of the Impact of Communications Technology and Improved Medical Protocol on Health Care Delivery in Penal Institutions. *Volume 1 Vol. I: Executive Summary*, 46 P. NTIS Pb-274 439/9 Dec 1976.

Sanborn DE, Seibert DJ, Sanborn CJ, Pyke HF

An Old Prison: A New Technology. *Journal Of Biocommunication* 2: 16-22, 1975.

Seibert DJ

Interact - A Decade Of Experience Using Two-way Closed-circuit Television For Medical Care And Education (Prepared for Lister Hill National Center For Biomedical Pb-275-518). *National Technical Information Service*: Springfield, VA; 1-143, 1977.

Simon I

Telepresence Surgery: Remote Surgery In The Near Future. *Bildgebung* 61(1): 9-10, Apr 1994.

Sotiriou D, Athanasiou T, Boddy L, Brutt K, Busoja A, Deftereos S, Gerneth M, Martinez A, Mouzakis T, Ottes K, Athanasiou L, Salvi A

Consolidated Report on Standards, Services and Applications in Telemedicine. - 2 Parts. (Diagrams Not Included) Part 1, 107 P.; Part 2, 98 P, Questionnaire 46 P.

Status of Telemedicine in the Department Of Defense; Prepared under contract number DASWOI-96-D-0057 and submitted to Director, Information, Technology, and Reengineering, March 9, 1998.

Stoil, M

Department of Defense Sizes Up Managed Care. Consulting News: BHM Jul-Aug 1998.

Straker W, Mostyn P, Marshall C

The Use of Two-way TV in Bringing Mental Health Services to the Inner City. *Am J Psychiatry* 133:1202-1205, 1976.

Thompson D, Taylor B

Well, Was It Worth It?; The Value Of Tele-tutorials For Bachelor Of Nursing Students. *Aust J Adv Nurs* 8(2):27-33, 1990.

Thorne BK

Medical Care Via Television: First Interstate Two-way Medical Television Network In The Country Links Dartmouth-Hitchcock With Three Other New Hampshire And Vermont Centers. *Dartmouth Alumni Magazine*, 65:18-21, 1973.

US Dept of Commerce

Telemedicine Report to Congress, NTIA in Consultation with US Dept of Health and Human Services. US Govt. Printing Office: 1997-418-626/42023.

US General Accounting Office

Telemedicine: Federal Strategy is Needed to Guide Investments. GAO/NSAID/HEHS-97-67 Telemedicine: Feb 14, 1997.

Vinikoor RL, Perrault J

Alcohol Follow-Up Counseling Via Interactive Television: Parker, La Olgren, Ch Teleconferencing And Interactive Media). *University of Wisconsin Extension*: Madison, WS: 270-274, 1980.

Vorland LH

Good Experiences With Telemedicine In The Regional Hospital In Tromso (Norwegian) *Nord Med* 107(10): 241-3, 1992.

Wells KB, Burnam MA, Leake B, Robins LW

Agreement Between Face-to-face And Telephone Administered Versions Of The Depression Section of The NIMH Diagnostic Interview Schedule. *J Psychiatr Res* 22:207-220, 1988.

Yoshino MT, Carmody R, Fajardo LL, Seecier J, Jones K

Diagnostic Performance of Teleradiology in Cervical Spine Fracture Detection. *Invest Radiol* 27(1): 55-59, 1992.

Appendix 2: Distribution List

Point of Contact	Reply Received	Designated POC	F/U letter sent	Response
Branch of Service:Army Category: Medical Specialty:Alcohol and Drug Abuse Consultant:Terry K. Shultz, COL, MC Address: HQDA (DASG-HS-CF) 5109 Leesburg Pike Falls Church VA, 22041-3258			7 April, 1998	None
Branch of Service:Army Category: Medical Specialty:Child and Adolescent Psychiatry Consultant:Thomas G. Hardaway, II, LTC, MC Address: Child and Adolescent Service Department of Psychiatry ATTN: MCXI-PSY-CMH Darnall Army Community Hospital Fort Hood TX, 76544-5063			7 April, 1998	None
Branch of Service:Army Category: Medical Specialty:Forensic Psychiatry Consultant:Raymond G. Lande, LTC, MC Address: Department of Psychiatry Walter Reed Army Medical Center 6825 16th Street NW Washington DC, 20307-5001	10/30/97	willing to participate	7 April, 1998	
Branch of Service:Army Category: Medical Specialty: Psychiatry Consultant:David Orman, LTC, MC Address: Chief of Psychiatry USA MEDDAC, DACH ATTN: MCXI-PSY Fort Hood TX, 76544-5063			7 April, 1998	
Branch of Service:Army Category: Nursing Specialty:Psychiatric/Mental Health Nursing Consultant:Debbie Lomax-Franklin, LTC, AN Address: Asst Chief Nurse 121st Evacuation Hospital Yongsan, Korea APO AP, 96205			7 April, 1998	None

Final Report: DOD Cooperative Agreement – Telepsychiatry

Branch of Service:Army Category:Medical Service Corps Specialty:Psychology, Clinical Consultant:Edward Crandell, COL, MS Address: Chief, Mental Health Specialist Branch Academy of Health Services ATTN: MCCS-HPB 3151 Scott Road Suite 033 Fort Sam Houston TX, 78234-6142			7 April, 1998	None Email sent to Jim Reid May 27 th asking to receive future information concerning the project
Branch of Service:Army Category:Medical Service Corps Specialty:Social Work Consultant:Griffin David Lockett, COL, MS Address: Social Work Consult to the Surgeon General CDR, USAArmy MEDCOM (MCHO-CL-H) ATTN: COL David Lockett 2050 Worth Road Suite 10 Fort Sam Houston TX, 78234-6010			7 April, 1998	Reply received 14 April, 1998. Would like copy of final full report on the survey responses, an analysis of the data and a comprehensive set of recommendations for telepsychiatry planning
Branch of Service:Navy Category: Medical Specialty: Psychiatry Consultant: William P. Nash, CAPT, MC, USN Address: Naval Medical Center 34800 Bob Wilson Drive San Diego CA, 92134-5000	11/4/97	willing to participate	7 April, 1998	
Branch of Service:Navy Category: Medical Specialty:Psychiatric Nursing Consultant:Sonia Menenberg, CDR, NC, USN Address: Naval Medical Center 34800 Bob Wilson Drive Suite 1800 San Diego CA, 92134-5001			7 April, 1998	None
Branch of Service:Navy Category:Allied Health Specialty:Social Work Consultant:D. L. Kennedy, CDR, MSC, USN Address: Bureau of Medicine and Surgery 2300 E Street, NW Washington DC, 20372-5300	10/29/97	willing to participate	7 April, 1998	

Final Report: DOD Cooperative Agreement – Telepsychiatry

Branch of Service: Air Force Category: Medical Specialty: Psychiatry Consultant: Molly J. Hall, LTC, Address: 89th MDG/SGHA 1050 West Perimeter Road Andrews AFB MD, 20762-6600	10/29/97	willing to participate	7 April, 1998	
Branch of Service: Air Force Category: Nursing Specialty: Nursing, Mental Health Consultant: Ned L. Moran, MAJ, Address: 81 MDG/SGOH 500 Fisher Street Keesler AFB MS, 39534-2561	11/10/97	willing to participate	7 April, 1998	
Branch of Service: Air Force Category: Allied Health Specialty: Clinical Psychology Consultant: Karl O. Moe, COL, Address: 89th MDG/SGOHY 1050 West Perimeter Road Suite A1-11 Andrews AFB MD, 20762-6600	10/30/97	willing to participate	7 April, 1998	
Branch of Service: Air Force Category: Allied Health Specialty: Clinical Social Work and Family Advocacy Consultant: John P. Nelson, COL, Address: HQ AFMOA/SGOS 8901 18th Street, Suite 1 Brooks AFB TX, 78235-5217	11/8/97	contact changed to: Carla A. Monroe-Posey, PhD, MSHA, LCSW, Lt Col, USAF, BSC, Director of Research/Deputy Director, Air Force Family Advocacy Program, AFMOA/SGO F, 2601 Doolittle Rd, Bldg. 801, Brooks AFB, TX 78235-5254 210-536-2031/8050 monroe_c@msa4.brooks.af.mil not willing to participate	7 April, 1998	None

Final Report: DOD Cooperative Agreement – Telepsychiatry

Region: 1 Lead Agent: MG Leslie M. Burger Address: Commander Walter Reed Army Medical Center Washington, DC 20307-5001			7 April, 1998	None
Region: 2 Lead Agent: RADM William Rowley Address: Commander Naval Medical Center 620 John Paul Jones Circle Portsmouth, VA 23708			7 April, 1998	None
Region: 3 Lead Agent: BG Robert F. Griffin Address: Commander Dwight David Eisenhower Medical Center Fort Gordon, GA 30905-5650	11/10/97	Col (Doctor) Joseph Andronaco, TRICARE Director, 706- 787-7533 And Col (Doctor) Timothy Sheehan, Chief of Mental Health Services and Consultant for Psychiatry, 706-787-6377	7 April, 1998	
Region: 4 Lead Agent: BrigGen Dan L. Blocker Address: Commander 81 st Medical Group/SG 111 G Street Kessler AFB, MS 39534-2428			7 April, 1998	None
Region: 5 Lead Agent: BrigGen Joseph E. Kelley Address: Commander 74th Medical Group/SG Bldg. 6, Area B 2776 C Street, Suite 200 Wright-Patterson AFB, OH 45433-7401	11/1997	LTC (Dr.) Joseph Dye Air Force Material Command Consultant for Psychiatry 937-257-7880	7 April, 1998	

Final Report: DOD Cooperative Agreement - Telepsychiatry

Region: 6 Lead Agent: MajGen Paul K. Carlton Address: Commander Wilford Hall Medical Center 2200 Bergquist Dr., Suite 1 Lackland AFB, TX 78236-5300		LTC Jean Dailey, Director, Telemedicine Project/Managed Care Outreach 210-292-3217 LTC Daryl Zeigler, Chief, Medical Informatics & Telemedicine 210-916-1924	7 April, 1998	
Region: 7 and 8 Lead Agent: Col Steve Phurrough Address: Commander 5475 Mark Dabling Blvd. Suite 101 Colorado Springs, CO 80918			7 April, 1998	Reply received 4/15/98 via email. POC will be: Virgil Hemphill, Col, USAF, MC, Medical Director, Tricare Central, Colorado Springs, CO 80919 Phone 719.524.2607 Fax 719.524.2655
Region: 9 Lead Agent: RADM Richard A. Nelson Address: Lead Agent BLDG-6-4 CODE SA 34800 Bob Wilson Drive San Diego, CA 92134-5000	2/25/98	LTC Alton Powell USAF TRICARE Region 9 Lead Agent Office 619-532-9339 apowell@snd10.med.navy.mil	7 April, 1998	
Region: 10 Lead Agent: Col Stephen Jennings Address: Acting Commander 60th Medical Group 510 Mulheron Street, Bldg. 383 Travis AFB, CA 94535-2419	11/24/97	LTC Jean McCarthur Assoc. Primary Care Management 510 Mulheron Street, Bldg. 383 Travis AFB, CA 94535-2419 707-424-6528 jmcarthu@mail.travis.af.mil	7 April, 1998	None
Region: 11 Lead Agent: BG George Brown			7 April, 1998	None

Final Report: DOD Cooperative Agreement - Telepsychiatry

Address: Commander Madigan Army Medical Center Tacoma, WA 98431				
Region: 12 Lead Agent: Capt. Richard Mayo Address: Fleet Surgeons Office CINCPAC FLT ATTN: CODE NOIN 250 Makalapa Drive Pearl Harbor, HI 96860-7000			7 April, 1998	None
Region: 7 and 8 Type: Primary Contractor: TRIWEST Healthcare Alliance Contact: Dr. James Sanders Address: Director of Health Services 15451 North 28 th Avenue Phoenix, AZ 85023				
Region: 7 and 8 Type: Behavioral Health Contractor: Merit Behavioral Care Corporation Contact: Dr. Martin E. Glasser Address: Medical Director 5451 North 28 th Avenue Phoenix, AZ 85080				

Appendix 3: Initial Contact Letter (Sample)

27-Aug-98

«Rank» «FirstName» «LastName», «Branch»
«Address1»
«Address2»
«Attn»
«Address3»
«Address4»
«City», «State» «Zip»

Subject: DOD Cooperative Agreement

We are contacting you in your capacity as the «Speciality» consultant to the «Service» Surgeon General to solicit your participation in the DOD funded project entitled “Menninger – USAMRMC Cooperative Agreement Telepsychiatry.” This project has been funded by the U.S. Army Medical Research Acquisition Activity to study the role of telepsychiatry in delivering behavioral health services to military personnel, their families, and military retirees under the TRICARE delivery system. Attached is a letter of introduction from Brigadier General Zajtchuk, under whose command this research is being conducted.

The research conducted under this cooperative agreement will:

- Assess the impact the DOD conversion to TRICARE will have on the delivery of behavioral health services to active duty members, their families, and military retirees.
- Conceptualize and define the role of telepsychiatry within the DOD behavioral health services delivery system including its role for both active duty members, and families and retirees.
- Propose a DOD system-wide telepsychiatry implementation model.

To conduct the research described above Menninger will collect a core set of data relating to behavioral health needs and services in each TRICARE region, as well as information that characterizes any unique situations, providers, and needy populations in each region. We will be collecting this data primarily from the regional Lead Agents and behavioral health contractors.

We wanted to apprise you of this project and solicit your input and advice. We would like to contact you periodically throughout the duration of the project to gain your opinions on various aspects of the project and to solicit pertinent information we cannot gain elsewhere. We expect that your assistance will provide an invaluable contribution to the success of this project, and ultimately to the efficacious and cost-effective delivery of tele-behavioral health services to military active duty personnel, their dependents, and retirees. The performance period for the entire project ends 1 July, 1998.

At this point in time, all I am requesting is a reply letter, memo, or email, acknowledging your interest and willingness to assist in this project, and confirming your contact information. Upon receipt of your correspondence, or shortly thereafter, I will contact you again to solicit more specific information related to the project.

You may send your confirmation to my attention at the Menninger Clinic (address hereon), fax it to 785.350.4279, or email me at <reidj@menninger.edu. If you have any questions about this request please don't hesitate to call me at 785.350.5852.

Final Report: DOD Cooperative Agreement – Telepsychiatry

Thank you in advance for your cooperation in this effort.

Sincerely,

Jim Reid PA-C, Director
Center for Telepsychiatry

JR/db

Enclosure

Appendix 4: Initial Contact Letter to Lead Agent Offices (Sample)

22-Oct-97

«Rank» «F_Name» «L_Name»
«Title»
«Add_1»
«Add_2»
«Add_3»
«City», «State» «Zip»

Subject: DOD Cooperative Agreement

We are contacting you as TRICARE Region «Region» Lead Agent to solicit your participation in the DOD funded project entitled “Menninger – USAMRMC Cooperative Agreement Telepsychiatry.” This project has been funded by the U.S. Army Medical Research Acquisition Activity to study the role of telepsychiatry in delivering behavioral health services to military personnel, their families, and military retirees under the TRICARE delivery system. Attached is a letter of introduction from Brigadier General Zajtchuk, under whose command this research is being conducted.

The research conducted under this cooperative agreement will:

- Assess the impact the DOD conversion to TRICARE will have on the delivery of behavioral health services to active duty members, their families, and military retirees.
- Conceptualize and define the role of telepsychiatry within the DOD behavioral health services delivery system including its role for both active duty members, and families and retirees.
- Propose a DOD system-wide telepsychiatry implementation model.

To conduct the research described above Menninger will collect a core set of data relating to behavioral health needs and services in each TRICARE region, as well as information that characterizes any unique situations, providers, and needy populations in each region. The performance period for the entire project ends 1 July, 1998. We anticipate meeting with representatives from your office in the next two months.

We would like to request that you designate one of your staff to serve as our primary point of contact, which can assist us in locating and compiling the data that will be requested. In general terms, the data to be collected relates to identifying those in need of behavioral health services in your region; outlining the behavioral health services currently available in your region; and identifying the provider resources in your region. We are also seeking to identify all telemedicine and telepsychiatry programs currently active in each region. For your information, we are also contacting the behavioral health services contractor or subcontractor in each TRICARE Region, to collect data from them as well.

We hope that you will be able to provide us a point of contact on your staff within the next two weeks. You may forward that information to my attention at the Menninger Clinic (address hereon), or fax it to 785.350.4279. If you have any questions about this request please don't hesitate to call me at 785.350.5852.

Thank you in advance for your cooperation in this effort.

Sincerely,

Jim Reid PA-C, Director
Center for Telepsychiatry

JR/db

Enclosure

Appendix 5: Follow Up Letter to Participating Organizations (Sample)

7 April, 1998

«Rank» «FirstName» «LastName», «Branch»
«Address1»
«Address2»
«Attn»
«Address3»
«Address4»
«City», «State» «Zip»

Subject: DOD Cooperative Agreement - Telepsychiatry

Dear «Rank» «LastName»:

You may recall we contacted you last October as a consultant to the «Service» Surgeon General to solicit your participation in the DOD funded project entitled “Menninger – USAMRMC Cooperative Agreement Telepsychiatry.” At that time, you indicated your willingness to advise and comment on the work being performed. Recall that this project has been funded by the U.S. Army Medical Research Acquisition Activity to study the role of telepsychiatry in delivering behavioral health services to military personnel, their families, and military retirees under the TRICARE delivery system. This letter is just to give you a brief update on our activities. We are not asking for any response at this time.

With the approval of the contracting officer’s representative and the project team at TATRC, we have narrowed the focus of the project to examine telepsychiatry use and opportunities within TRICARE Regions 3, 6, and 9. We have met with Lead Agent staff in each region and gained their support for this initiative. We are currently undertaking the distribution of a survey to assess: 1) the need for telepsychiatry services; 2) the opinions of behavioral health service providers on telepsychiatry; 3) the current and planned telemedicine and telepsychiatry activities/capabilities – at each MTF in each region. The responses to the survey will help us identify specific opportunities for telepsychiatry within the DOD. Focused discussions with Lead Agent staff, DOD behavioral health providers, and DOD administrators will help us identify the parameters by which successful telepsychiatry implementations should be measured.

The final product of this project will include a full report on the survey responses, an analysis of the data, and a comprehensive set of recommendations for telepsychiatry planning, implementation, and evaluation within the DOD. We anticipate forwarding you drafts of the report for your review and comments.

Should you have any questions about this project in advance of our next correspondence, please do not hesitate to contact me at 785.350.5852 or at reidj@menninger.edu.

Sincerely,

Jim Reid, PA-C
Director, Center for Telepsychiatry

Appendix 6: Follow-up Letter to Non-Responding Consultants to the Surgeon General (Sample)

7 April, 1998

«Rank» «FirstName» «LastName», «Branch»
«Address1»
«Address2» «Attn»
«Address3»
«Address4»
«City», «State» «Zip»

Subject: DOD Cooperative Agreement - Telepsychiatry

Dear «Rank» «LastName»:

We contacted you last October as a consultant to the «Service» Surgeon General to solicit your participation in the DOD funded project entitled “Menninger – USAAMRMC Cooperative Agreement Telepsychiatry.” You may recall that this project has been funded by the U.S. Army Medical Research Acquisition Activity to study the role of telepsychiatry in delivering behavioral health services to military personnel, their families, and military retirees under the TRICARE delivery system. Although we received no response from you to our inquiry, we wanted to give you a brief progress report.

With the approval of the contracting officer’s representative and the project team at TATRC, we have narrowed the focus of the project to examine telepsychiatry use and opportunities within TRICARE Regions 3, 6, and 9. We have met with Lead Agent staff in each region and gained their support for this initiative. We are currently undertaking the distribution of a survey to assess: 1) the need for telepsychiatry services; 2) the opinions of behavioral health service providers on telepsychiatry; 3) the current and planned telemedicine and telepsychiatry activities/capabilities – at each MTF in each region. The responses to the survey will help us identify specific opportunities for telepsychiatry within the DOD. Focused discussions with Lead Agent staff, DOD behavioral health providers, and DOD administrators will help us identify the parameters by which successful telepsychiatry implementations should be measured.

The final product of this project will include a full report on the survey responses, an analysis of the data, and a comprehensive set of recommendations for telepsychiatry planning, implementation, and evaluation within the DOD. At a future date, we would like to forward to you drafts of the report for your review and comments. However, we do not wish to burden you with information in which you have no interest. If you would like to receive future materials to review, please contact me at 785.350.5852 or at reidj@menninger.edu.

Sincerely,

Jim Reid, PA-C
Director, Center for Telepsychiatry

Appendix 7: Follow-up Letter to Participating Lead Agents (Sample)

7 April, 1998

«Rank» «F_Name» «L_Name»
«Title»
«Add_1»
«Add_2»
«Add_3»
«City», «State» «Zip»

Subject: DOD Cooperative Agreement - Telepsychiatry

Dear «Rank» «L_Name»:

You may recall we contacted your office last October as a TRICARE Lead Agent to solicit participation in the DOD funded project entitled “Menninger – USAMRMC Cooperative Agreement Telepsychiatry.” At that time, you were designated as our POC to advise and comment on the work being performed. Recall that this project has been funded by the U.S. Army Medical Research Acquisition Activity to study the role of telepsychiatry in delivering behavioral health services to military personnel, their families, and military retirees under the TRICARE delivery system. This letter is just to give you a brief update on our activities. We are not asking for any response at this time.

With the approval of the contracting officer’s representative and the project team at TATRC, we have narrowed the focus of the project to examine telepsychiatry use and opportunities within TRICARE Regions 3, 6, and 9. We have met with Lead Agent staff in each region and gained their support for this initiative. We are currently undertaking the distribution of a survey to assess: 1) the need for telepsychiatry services; 2) the opinions of behavioral health service providers on telepsychiatry; 3) the current and planned telemedicine and telepsychiatry activities/capabilities – at each MTF in each region. The responses to the survey will help us identify specific opportunities for telepsychiatry within the DOD. Focused discussions with Lead Agent staff, DOD behavioral health providers, and DOD administrators will help us identify the parameters by which successful telepsychiatry implementations should be measured.

The final product of this project will include a full report on the survey responses, an analysis of the data, and a comprehensive set of recommendations for telepsychiatry planning, implementation, and evaluation within the DOD. We anticipate forwarding you drafts of the report for your review and comments.

Should you have any questions about this project in advance of our next correspondence, please do not hesitate to contact me at 785.350.5852 or at reidj@menninger.edu.

Sincerely,

Jim Reid, PA-C
Director, Center for Telepsychiatry

Appendix 8: Follow-up Letter to Non-Participating Lead Agents (Sample)

7 April, 1998

«Rank» «F_Name» «L_Name»
«Title»
«Add_1»
«Add_2»
«Add_3»
«City», «State» «Zip»

Subject: DOD Cooperative Agreement - Telepsychiatry

Dear «Rank» «L_Name»:

We contacted you last October as a TRICARE Lead Agent to solicit a point of contact (POC) in your office to participate in the DOD funded project entitled "Menninger - USAMRMC Cooperative Agreement Telepsychiatry." You may recall that this project has been funded by the U.S. Army Medical Research Acquisition Activity to study the role of telepsychiatry in delivering behavioral health services to military personnel, their families, and military retirees under the TRICARE delivery system. Although we received no response from your office to our initial inquiry, we wanted to give you a brief progress report.

With the approval of the contracting officer's representative and the project team at TATRC, we have narrowed the focus of the project to examine telepsychiatry use and opportunities within TRICARE Regions 3, 6, and 9. We have met with Lead Agent staff in each region and gained their support for this initiative. We are currently undertaking the distribution of a survey to assess: 1) the need for telepsychiatry services; 2) the opinions of behavioral health service providers on telepsychiatry; 3) the current and planned telemedicine and telepsychiatry activities/capabilities - at each MTF in each region. The responses to the survey will help us identify specific opportunities for telepsychiatry within the DOD. Focused discussions with Lead Agent staff, DOD behavioral health providers, and DOD administrators will help us identify the parameters by which successful telepsychiatry implementations should be measured.

The final product of this project will include a full report on the survey responses, an analysis of the data, and a comprehensive set of recommendations for telepsychiatry planning, implementation, and evaluation within the DOD. At a future date, we would like to forward to your office drafts of the report for your review and comments. However, we do not wish to burden your office with information that does not apply to your region. If there is a POC on your staff that should receive future materials to review, please contact me at 785.350.5852 or at reidj@menninger.edu.

Sincerely,

Jim Reid, PA-C
Director, Center for Telepsychiatry

Appendix 9: Telepsychiatry Services Survey

Menninger-USAMRMC Cooperative Agreement – TELEPSYCHIATRY

Telepsychiatry Services Survey

Instructions to Clinical POC Respondents

This survey is divided into four major sections. As the Clinical POC for your facility, you should complete sections 1 and 2. You should also complete questions 30 and 31 in section 4 on page 10. The third section contains technical questions. Responses to these questions will be provided by the Technical POC at your facility on a separate document. The technical questions are provided in the shaded areas on page 9, to give you an understanding of the data we are collecting, but you need not respond to them. Again, you should not respond to questions in the shaded areas.

Several of the questions on this survey ask you to “estimate” a quantity, or “estimate” the opinions of your colleagues. We recognize that to arrive at exact responses would require time and resources beyond our mutual disposal. Therefore, please use your best judgment based upon daily experiences at your facility when answering these questions.

Special Note to Respondents

Throughout this survey the term “behavioral health” or a variant thereof is used. This is intended as a generic term, synonymous with mental health, that includes the disciplines of psychiatry, psychology, social work, psychiatric nursing, etc. Unless otherwise indicated, when this term is used, the question should be considered with the services of all of these disciplines in mind.

The term “telepsychiatry” is used throughout. This is also intended as a generic term, used to describe the use of advanced telecommunications technologies to provide/exchange behavioral health information, education and services between two or more providers that are geographically distant from each other. Telepsychiatry is used throughout but can be interpreted to mean tele-mental health, tele-psychology, tele-social work, tele-nursing, etc.

The total time required to complete this survey should be less than 10 minutes.

Questions regarding this survey should be directed to:

Jim Reid, PA-C, Director
Menninger Center for Telepsychiatry
800.351.9058 ext.5852 or 913.350.5852
reidj@menninger.edu

Please fax your completed survey by 13 May 1998 to:

Menninger Center for Telepsychiatry
Voice: 800.351.9058 ext.5852 Fax: 913.350.4279

Section 1 Behavioral Health Services – Completed by the facility's Clinical POC

1. Do you provide any level of behavioral health services at your facility (PCM delivered services, psychiatric nursing, social work, psychology, and psychiatry)? Circle one.

Yes No

If you answered No, skip to **Section 2**, page 6.

2. In the most general of terms, characterize the level of behavioral health services available at your facility using the criteria below. Check only one.

	<u>Primary Care A – Only basic outpatient mental health services available – delivered by primary care managers. Challenging cases are referred to a higher level facility. No inpatient services.</u>
	Primary Care B – Outpatient mental health services available and delivered by mental health professionals. All inpatient and challenging cases referred to a higher lever facility.
	Secondary Care – Higher level outpatient and inpatient behavioral health services available but specialty cases (e.g. child psychiatry, eating disorders, etc.) may require referral to higher level facility.
	Tertiary Care – Almost all behavioral health specialties available. A regional referral center that serves primarily to receive consults and transfer from other facilities. Adult and child, and specialty inpatient services.

3. To which of the following group(s) does your facility provide services? Check all that apply.

	<u>Active duty personnel</u>
	Active duty family members
	Retirees

Please continue to next page.

4. Which of the following behavioral health disciplines, if any, are available at your facility?
Check all that apply.

✓

	<u>Psychiatric nursing</u>
	Social work
	Psychology
	Psychiatry
	None

5. Which of the following behavioral health services are available at your facility?
Check all that apply.

✓

	Residential services
	Outpatient services
	Inpatient services
	Partial hospitalization services
	Individual therapy
	Group therapy
	Family counseling
	Marriage counseling
	Psychological testing
	Family advocacy services
	Child psychiatry
	Adult psychiatry
	Geriatric psychiatry
Specialty services:	
	Eating disorders
	PTSD/Trauma recovery
	Substance abuse
	Other: _____
	None

6. As a first alternative to referring a behavioral health patient to another facility, do providers (primary care or behavioral health) at your facility ever seek telephonic, fax, e-mail, or telemedicine consultations with providers at other facilities (civilian or military)? Circle one.

Yes No ➔ Skip to question number 8.

Please continue to next page.

7. How many times per month would you estimate providers at your facility (all providers combined) seek behavioral health consultations with providers at another facility (civilian or military)? Check only one.

<input type="checkbox"/>	1 – 10
<input type="checkbox"/>	10 – 25
<input type="checkbox"/>	25 – 50
<input type="checkbox"/>	50 – 100
<input type="checkbox"/>	100 – 150
<input type="checkbox"/>	150 – 200
<input type="checkbox"/>	>200 per month

8. How satisfied would you estimate providers at your facility are with the responsiveness and quality of the consultations they receive from providers at other facilities? Circle one.

1 2 3 4 5
Highly Satisfied Satisfied Indifferent Unsatisfied Highly Unsatisfied

9. Do providers (primary care or behavioral health) at your facility ever refer, for consultation or definitive management, cases from your facility on to other facilities (civilian or military)? Circle one.

Yes No → Skip to Section 2, page 6.

10. How many cases **per month** would you estimate are referred from your facility for consultation or definitive management to another facility (civilian or military)? Check only one.

<input type="checkbox"/>	1 – 10
<input type="checkbox"/>	10 – 25
<input type="checkbox"/>	25 – 50
<input type="checkbox"/>	50 – 100
<input type="checkbox"/>	100 – 150
<input type="checkbox"/>	150 – 200
<input type="checkbox"/>	>200 per month

Please continue to next page.

11. Please characterize the cases that have been referred from your facility to another, for consultation or definitive management, in the last year.
 Check all that apply.

Referred	Diagnostic Groups
	Disorders usually first diagnosed in infancy, childhood, or adolescence
	Delirium, dementia, and amnestic and other cognitive disorders
	Mental disorders due to a general medical condition not elsewhere classified
	Substance related disorders
	Schizophrenia and other psychotic disorders
	Mood disorders
	Anxiety disorders
	Somatoform disorders
	Factitious disorders
	Dissociative disorders
	Sexual and gender identity disorders
	Eating disorders
	Sleep disorders
	Impulse-control disorders not elsewhere classified
	Adjustment disorders
	Personality disorders
	Other conditions that may be a focus of clinical attention
Referred	Types of Services
	<u>Residential services</u>
	<u>Outpatient services</u>
	Inpatient services
	Partial hospitalization services
	<u>Individual therapy</u>
	Group therapy
	Family counseling
	Marriage counseling
	Psychological testing
	Family advocacy services
	Child psychiatry
	Adult psychiatry
	Geriatric psychiatry
	Other

Please continue to next page.

12. Provide the names of the most common facilities (civilian or military) to which behavioral health patients are referred from your facility, and their approximate distance from your facility. List up to 5.

1. _____	Circle one ➔	0-25	25-75	75-150	>150	miles
2. _____	Circle one ➔	0-25	25-75	75-150	>150	miles
3. _____	Circle one ➔	0-25	25-75	75-150	>150	miles
4. _____	Circle one ➔	0-25	25-75	75-150	>150	miles
5. _____	Circle one ➔	0-25	25-75	75-150	>150	miles

13. How satisfied would you estimate providers at your facility are with the outcomes of referrals made to the facilities named above?

1 Highly Satisfied	2 Satisfied	3 Indifferent	4 Unsatisfied	5 Highly Unsatisfied
-----------------------	----------------	------------------	------------------	-------------------------

Section 2 Opinions on Telepsychiatry – Should be completed by the facility's Clinical POC

Telepsychiatry is widely implemented in the civilian sector today. It has been the top interactive video telemedicine application for the last three years based upon volume of services delivered. In the US, there are at least nine dedicated telepsychiatry programs, and an additional 37 telemedicine programs that include telemental health in the list of services they provide. Common services provided via telepsychiatry in the civilian sector include pre-admission assessment, treatment planning, discharge planning, medication management, crisis intervention, commitment hearings, individual and family therapy, psychiatric specialty consultations, supervision, education, and support group meetings. Given this background information, and the potential to meet similar needs in the military, this section is intended to survey your opinions regarding the potential use and value of telepsychiatry within the DOD.

14. Please rate your level of knowledge and experience in telemedicine/telepsychiatry.

1 Highly Knowledgeable	2 Moderately Knowledgeable	3 Knowledgeable	4 Minimally Knowledgeable	5 No Knowledge
------------------------------	----------------------------------	--------------------	---------------------------------	-------------------

Please continue to next page.

Potential Impact of Telepsychiatry on the DOD Health Care System

For each of the following statements, use the scale, which follows to indicate the degree to which you agree or disagree with the statement or concept presented.

15. Use of telepsychiatry in the DOD can increase individual/unit readiness.
Circle response below.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

16. Use of telepsychiatry in the DOD can decrease the overall cost of care.
Circle response below.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

17. Use of telepsychiatry in the DOD can maintain or increase quality of care.
Circle response below.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

18. Use of telepsychiatry in the DOD can increase access to care.
Circle response below.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

The Role of Telepsychiatry in the DOD Behavioral Health Care Delivery System

Indicate the degree to which you agree or disagree with each of the proposed uses of telepsychiatry within the DOD behavioral health care delivery system.

19. Telepsychiatry could be used by specialists to conduct initial assessments of difficult patients prior to referral.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

20. Telepsychiatry could be used to triage patients to the most appropriate treatment facility.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

21. Telepsychiatry could be used to assist primary care providers in developing treatment plans.

1 2 3 4 5
Strongly Agree Agree No Opinion Disagree Strongly Disagree

22. Telepsychiatry could be used to educate/train primary care providers.

1 Strongly Agree	2 Agree	3 No Opinion	4 Disagree	5 Strongly Disagree
---------------------	------------	-----------------	---------------	------------------------

23. Telepsychiatry could be used to deliver on-going follow-up care to patients in their home communities (e.g. medication checks).

1 Strongly Agree	2 Agree	3 No Opinion	4 Disagree	5 Strongly Disagree
---------------------	------------	-----------------	---------------	------------------------

24. Telepsychiatry could be used to conduct on-going individual therapy.

1 Strongly Agree	2 Agree	3 No Opinion	4 Disagree	5 Strongly Disagree
---------------------	------------	-----------------	---------------	------------------------

25. Telepsychiatry could be used to conduct on-going group and family therapy.

1 Strongly Agree	2 Agree	3 No Opinion	4 Disagree	5 Strongly Disagree
---------------------	------------	-----------------	---------------	------------------------

26. Of the behavioral health disciplines listed below, which do you believe can appropriately use telepsychiatry technologies to provide services? Circle your response, “Yes”, “No” or “Don’t know” for each.

(Circle only one)

General psychiatrists	Yes	No	Don't know
Specialist psychiatrists (e.g. Child and adolescent specialists, gerontology specialists)	Yes	No	Don't know
Sub-specialist psychiatrists (e.g. eating disorder specialists, psychopharmacologists, etc.)	Yes	No	Don't know
Psychologists	Yes	No	Don't know
Social workers	Yes	No	Don't know
Psychiatric nurses	Yes	No	Don't know

Please continue to next page.

Telepsychiatry Technologies

27. Of the technologies listed below, which do you believe can appropriately be used to provide telepsychiatry services? Circle your response, "Yes", "No" or "Don't know" for each.

(Circle only one)

Technology	Yes	No	Don't know
Facsimile (fax)			
Electronic mail (e-mail)			
Computer based store and forward			
Video teleconferencing (via plain old telephone service - POTS)			
Video teleconferencing (128 KBPS)			
Video teleconferencing (384 KBPS)			
Video teleconferencing (> 384 KBPS)			
Other: (specify) _____			
Internet/world wide web			
Commercial networks			
Closed (proprietary) networks only			

Clinical POCs should continue to Questions 30 and 31, in Section 4, on page 10.

**Section 3 Telemedicine and Telepsychiatry Activities/Capabilities –
Should be completed by the facility's Technical POC.**

This section will assess your facility's current activities and capabilities in telemedicine in general, and in telepsychiatry in particular.

28. Does your facility currently have any telemedicine or telepsychiatry programs or technology in place, or under development?

Yes No → Skip to Section 4, page 10.

29. To help us better understand your facility's level of involvement in telemedicine/telepsychiatry, and the telemedicine technologies at your facility, please respond to each of the statements in the table below. The statements apply generally to your facility and all of the staff. Indicate which technologies are available or in use at your facility, and your level of telemedicine/telepsychiatry activity, by circling your response, "Yes", "No" or "Don't know" for each.

(Circle only one)

This facility has:			
	Yes	No	Don't Know
Telemedicine/telepsychiatry technology			
Facsimile (fax)	Yes	No	Don't Know
E-mail	Yes	No	Don't Know
Computer based store and forward technology	Yes	No	Don't Know
Video teleconferencing (plain old telephone service – POTS)	Yes	No	Don't Know
Video teleconferencing (128 KBPS)	Yes	No	Don't Know
Video teleconferencing (384 KBPS)	Yes	No	Don't Know
Video teleconferencing (>384 KBPS)	Yes	No	Don't Know
Internet/world wide web	Yes	No	Don't Know
Other technology – detail:	Yes	No	Don't Know
This facility is:			
	Yes	No	Don't Know
Currently conducting clinical telemedicine interactions	Yes	No	Don't Know
Currently conducting clinical telepsychiatry interactions	Yes	No	Don't Know
Currently conducting non-clinical telemedicine conferences (CME, Admin.)	Yes	No	Don't Know
Planning telemedicine/telepsychiatry technology deployment	Yes	No	Don't Know
Planning telemedicine/telepsychiatry clinical applications	Yes	No	Don't Know
Planning initial non-clinical telemedicine applications (CME, Admin., etc.)	Yes	No	Don't Know

Section 4. Contact Information

30. Name and location of facility to which the responses on this survey apply:

The next two sections request contact information for a Clinical POC and a Technical POC.

31. Clinical Point of Contact - Should there be any questions about the responses to clinical questions on this survey, whom may we contact?

Grade:

Branch of Service:

Name (First, MI, Last):

Title:

Comm. Telephone:

Comm. FAX:

Email:

Mailing Address:

Attention Line:

Building Number:

Street:

City/Station:

State:

Zip Code:

Please continue to next page.

32. Technical Point of Contact - Should there be any questions about the responses to technical questions on this survey, whom may we contact?

Grade: _____

Branch of Service: _____

Name (First, MI, Last): _____

Title: _____

Comm. Telephone: _____

Comm. FAX: _____

Email: _____

Mailing Address: _____

Attention Line: _____

Building Number: _____

Street: _____

City/Station: _____

State: _____

Zip Code: _____

**Responses should be faxed to the Menninger Center for Telepsychiatry at
913.350.4279.**

If any problems are encountered in transmitting this document,
call Dawn Bradley at 800.351.9058 x5863 or 913.350.5863

Thank you for your assistance.

Appendix 10. List of Military Treatment Facilities Identified in TriCare Regions 3, 6, and 9

Region	Branch	State	Base/Installation	Facility
3	Air Force	Florida	MacDill Air Force Base	6 th Medical Group
3	Air Force	Florida	Patrick Air Force Base	45 th Medical Group
3	Navy	Florida	Cecil Field Naval Air Station	Branch Medical Clinic
3	Navy	Florida	Jacksonville Naval Hospital	Naval Hospital Jacksonville
3	Navy	Florida	Jacksonville Naval Air Station	Branch Medical Clinic
3	Navy	Florida	Key West Naval Air Station	Branch Medical Clinic
3	Navy	Florida	Mayport Naval Air Station	Branch Medical Clinic
3	Navy	Florida	Orlando Naval Training Center	Branch Medical Clinic
3	Air Force	Georgia	Moody Air Force Base	347 th Medical Group
3	Air Force	Georgia	Robins Air Force Base	78 th Medical Group
3	Army	Georgia	Fort Benning	Martin Army Community Hospital
3	Army	Georgia	Fort Gordon	Dwight D. Eisenhower Army Medical Center
3	Army	Georgia	Fort McPherson	Joel Army Health Clinic
3	Army	Georgia	Fort Stewart	Winn Army Community Hospital
3	Army	Georgia	Hunter Army Airfield	Tuttle Health Clinic
3	Marine Corps	Georgia	Albany Marine Corps Logistics	Branch Medical Clinic
3	Army	Georgia	Atlanta Naval Air Station	Branch Medical Clinic
3	Army	Georgia	Kings Bay Naval Submarine Base	Naval Medical Clinic
3	Army	Georgia	Naval Supply Corps School	Branch Medical Clinic
3	Army	Puerto Rico	Fort Buchanan	Army Medical Clinic
3	Army	Puerto Rico	Roosevelt Roads Naval Station	Naval Hospital Roosevelt Roads
3	Air Force	South Carolina	Charleston Air Force Base	437 th Medical Group
3	Air Force	South Carolina	Shaw Air Force Base	20 th Medical Group
3	Army	South Carolina	Fort Jackson	Moncrief Army Community Hospital
3	Marine Corps	South Carolina	Beaufort Marine Corps Air Station	Branch Medical Clinic
3	Marine Corps	South Carolina	Parris Island Marine Corps Recruit Depot	Marine Corps Recruit Depot Branch Medical Clinic
3	Navy	South Carolina	Beaufort Naval Hospital	Naval Hospital Beaufort
3	Navy	South Carolina	Charleston Naval Base	Naval Hospital Charleston
3	Navy	South Carolina	Naval Weapons Station – Charleston	Branch Medical Clinic
6	Air Force	Arkansas	Little Rock Air Force Base	314 th Medical Group
6	Army	Arkansas	Pine Bluff Arsenal	Army Health Clinic
6	Air Force	Louisiana	Barksdale Air Force Base	2 nd Medical Group
6	Army	Louisiana	Fort Polk	Baynes-Jones Army Community Hospital
6	Air Force	Oklahoma	Altus Air Force Base	97 th Medical Group

Final Report: DOD Cooperative Agreement – Telepsychiatry

Region	Branch	State	Base/Installation	Facility
6	Air Force	Oklahoma	Tinker Air Force Base	72 nd Medical Group
6	Air Force	Oklahoma	Vance Air Force Base	71 st Medical Group
6	Army	Oklahoma	Fort Sill	Reynolds Army Community Hospital
6	Army	Oklahoma	McAlester Army Ammunition Depot	Army Health Clinic
6	Air Force	Texas	Brooks Air Force Base	70 th Medical Squadron Clinic
6	Air Force	Texas	Dyess Air Force Base	7 th Medical Group
6	Air Force	Texas	Goodfellow Air Force Base	17 th Medical Group
6	Air Force	Texas	Kelly Air Force Base	76 th Medical Group
6	Air Force	Texas	Lackland Air Force Base	Wilford Hall Air Force Medical Center
6	Air Force	Texas	Laughlin Air Force Base	47 th Medical Group
6	Air Force	Texas	Randolph Air Force Base	12 th Medical Group
6	Air Force	Texas	Shepard Air Force Base	82 nd Medical Group
6	Army	Texas	Corpus Christi Army Depot	Occupational Health Clinic
6	Army	Texas	Fort Hood	Darnall Army Community Hospital
6	Army	Texas	Fort Sam Houston	Brooke Army Medical Center
6	Army	Texas	Red River Army Depot	Army Health Clinic
6	Navy	Texas	Corpus Christi Naval Air Station	Naval Hospital Corpus Christi
6	Navy	Texas	Fort Worth Naval Air Station	Branch Medical Clinic
6	Navy	Texas	Ingleside Naval Station	Branch Medical Clinic
6	Navy	Texas	Kingsville Naval Air Station	Branch Medical Clinic
6	Army	Texas	Fort Bliss	Beaumont Army Medical Center
9	Army	Arizona	Yuma Proving Grounds	Army Health Clinic
9	Marine Corps	Arizona	Yuma Marine Corps Air Station	Branch Medical Clinic
9	Army	Arizona	Fort Huachuca	Bliss Army Community Hospital
9	Air Force	California	Edwards Air Force Base	95 th Medical Group
9	Air Force	California	Los Angeles Air Force Base	61 st Medical Group
9	Air Force	California	Vandenberg Air Force Base	30 th Medical Group
9	Army	California	Fort Irwin	Weed Army Community Hospital
9	Marine Corps	California	Barstow Marine Corps Logistics	Branch Medical Clinic
9	Marine Corps	California	Bridgeport MCMWTC	Branch Medical Clinic
9	Marine Corps	California	Camp Pendleton	Naval Hospital Camp Pendleton
9	Marine Corps	California	El Toro Marine Corps Air Station	El Toro Medical Facility
9	Marine Corps	California	San Diego Marine Corps Recruit Depot	Marine Corps Recruit Depot Branch Medical Clinic
9	Marine Corps	California	Tusin Marine Corps Air Station	Branch Medical Clinic
9	Marine Corps	California	Twenty-nine Palms Marine Corps Air-Ground Combat Center	Naval Hospital Twenty-Nine Palms
9	Navy	California	Concord Naval Weapons Station	Branch Medical Clinic
9	Navy	California	Coronado Naval Amphibious Base	Branch Medical Clinic

Final Report: DOD Cooperative Agreement – Telepsychiatry

Region	Branch	State	Base/Installation	Facility
9	Navy	California	El Centro Naval Air Facility	Branch Medical Clinic
9	Navy	California	Lemoore Naval Air Facility	Naval Hospital Lemoore
9	Navy	California	Miramar Naval Air Station	Branch Medical Clinic
9	Navy	California	North Island Naval Air Station	Branch Medical Clinic
9	Navy	California	Point Magu Naval Air Weapons Station	Branch Medical Clinic
9	Navy	California	Point Hueneme Naval Construction Battalion Center	Naval Medical Clinic
9	Navy	California	San Diego Naval Medical Center	Naval Medical Center San Diego
9	Navy	California	China Lake Naval Air Weapons Station	Branch Medical Clinic
9	Navy	California	San Diego Naval Station	Branch Medical Clinic

Appendix 11: DOD Military Treatment Facility Survey Results

Question	Response	From	Percentage
Does this facility provide any behavioral health services?			
Yes	48	54	89%
No	2	54	4%
not entered	1	54	2%
Type of facility:			
Primary Care A	16	49	33%
Primary Care B	25	49	51%
Secondary Care	5	49	10%
Tertiary Care	3	49	6%
Services provided to:			
Active Duty	49	49	100%
AD Family	39	49	80%
Retirees	34	49	69%
Disciplines available:			
Discipline - Psychiatric Nursing	8	49	16%
Discipline - Social Work	31	49	63%
Discipline - Psychology	35	49	71%
Discipline - Psychiatry	23	49	47%
Types of services provided at this facility:			
Residential services (provided)	0	49	0%
Outpatient services (provided)	41	49	84%
Inpatient services (provided)	8	49	16%
Partial hospitalization services (provided)	2	49	4%
Individual therapy (provided)	38	49	78%
Group therapy (provided)	31	49	63%
Family counseling (provided)	28	49	57%
Marriage counseling (provided)	31	49	63%
Psychological testing (provided)	33	49	67%
Family advocacy services (provided)	35	49	71%
Child psychiatry (provided)	10	49	20%
Adult psychiatry (provided)	24	49	49%
Geriatric psychiatry (provided)	9	49	18%
Eating Disorders (provided)	5	49	10%
PTSD/Trauma recovery (provided)	15	49	31%
Substance abuse (provided)	29	49	59%
Other (provided)	7	49	14%
Providers at this facility seek electronic consults.			
1-10 consults w/another facility	6	49	12%
10-25 consults w/another facility	30	49	61%
25-50 consults w/another facility	5	49	10%
25-50 consults w/another facility	2	49	4%
Satisfied w/response and quality			
Highly satisfied	6	49	12%
Satisfied	31	49	63%
Indifferent	8	49	16%
Unsatisfied	2	49	4%

Providers at this facility refer cases to other facilities	45	49	92%
1-10 cases referred per month	40	49	82%
10-25 cases referred per month	5	49	10%
25-50 cases referred per month	1	49	2%
50-100 cases referred per month	0	49	0%
100-150 cases referred per month	0	49	0%
150-200 cases referred per month	1	49	2%

Types of diagnosis referred:			
Disorders diagnosed in infancy, childhood or adolescence	16	49	33%
Delirium, dementia, amnesia and other cognitive disorders	12	49	24%
Mental disorder due to general medical condition not elsewhere classified	10	49	20%
Substance related disorders	33	49	67%
Schizophrenia and other psychotic disorders	25	49	51%
Mood disorders	37	49	76%
Anxiety disorders	23	49	47%
Somatoform disorders	9	49	18%
Factitious disorders	5	49	10%
Dissociative disorders	8	49	16%
Sexual and gender identity disorders	5	49	10%
Eating Disorders	19	49	39%
Sleep disorders	20	49	41%
Impulse-control disorders not elsewhere classified	10	49	20%
Adjustment disorders	21	49	43%
Personality disorders	26	49	53%
Other conditions that may be focus of clinical attention	8	49	16%

Types of Services referred:	0	49	0%
Residential services (referred)	18	49	37%
Outpatient services (referred)	24	49	49%
Inpatient services (referred)	40	49	82%
Partial hospitalization services (referred)	14	49	29%
Individual therapy (referred)	20	49	41%
Group therapy (referred)	13	49	27%
Family counseling (referred)	15	49	31%
Marriage counseling (referred)	16	49	33%
Psychological testing (referred)	17	49	35%
Family advocacy services (referred)	12	49	24%
Child psychiatry (referred)	20	49	41%
Adult psychiatry (referred)	24	49	49%
Geriatric psychiatry (referred)	7	49	14%
Other (referred)	5	49	10%

Referral facilities:

Referral facility 1

military	37	49	76%
civilian	9	49	18%

Distance to referral facility 1

0-25 miles	20	49	41%
25 - 75 miles	9	49	18%
75 - 100 miles	7	49	14%
150+ miles	12	49	24%

Referral facility 2

Final Report: DOD Cooperative Agreement – Telepsychiatry

military	21	49	43%
civilian	18	49	37%
<u>Distance to referral facility 2</u>			
0-25 miles	18	49	37%
25 - 75 miles	5	49	10%
75 - 100 miles	2	49	4%
150+ miles	12	49	24%
<u>Referral facility 3</u>			
military	10	49	20%
civilian	19	49	39%
<u>Distance to referral facility 3</u>			
0-25 miles	13	49	27%
25 - 75 miles	5	49	10%
75 - 100 miles	3	49	6%
150+ miles	8	49	16%
<u>Referral facility 4</u>			
military	4	49	8%
civilian	7	49	14%
<u>Distance to referral facility 4</u>			
0-25 miles	6	49	12%
25 - 75 miles	0	49	0%
75 - 100 miles	1	49	2%
150+ miles	4	49	8%
<u>Referral facility 5</u>			
military	2	49	4%
civilian	4	49	8%
<u>Distance to Referral facility 5</u>			
0-25 miles	4	49	8%
25 - 75 miles	0	49	0%
75 - 100 miles	0	49	0%
150+ miles	1	49	2%
Satisfaction with referral facilities			
Highly satisfied	6	49	12%
Satisfied	36	49	73%
Indifferent	3	49	6%
Unsatisfied	3	49	6%

Telemed/Telepsych applications:			
<u>Knowledge of telemed/telepsych</u>			
highly knowledgeable	3	51	6%
moderately knowledgeable	6	51	12%
knowledgeable	10	51	20%
minimal knowledge	20	51	39%
no knowledge	12	51	24%
<u>Telepsych can increase individual/unit readiness.</u>			
strongly agree	6	51	12%
agree	25	51	49%
no opinion	17	51	33%
disagree	2	51	4%
strongly disagree	0	51	0%
<u>Telepsych can decrease overall cost of care.</u>			
strongly agree	9	51	18%

Final Report: DOD Cooperative Agreement – Telepsychiatry

agree	18	51	35%
no opinion	20	51	39%
disagree	3	51	6%
strongly disagree	1	51	2%
<u>Telepsych can maintain or increase quality of care.</u>			
strongly agree	8	51	16%
agree	20	51	39%
no opinion	17	51	33%
disagree	4	51	8%
strongly disagree	2	51	4%
<u>Telepsych can increase access to care.</u>			
strongly agree	11	51	22%
agree	24	51	47%
no opinion	12	51	24%
disagree	2	51	4%
strongly disagree	2	51	4%
<u>TP used by specialist to conduct initial assessments</u>			
strongly agree	9	51	18%
agree	32	51	63%
no opinion	7	51	14%
disagree	1	51	2%
strongly disagree	1	51	2%
<u>TP used to triage patients to appropriate facility</u>			
strongly agree	12	51	24%
agree	32	51	63%
no opinion	4	51	8%
disagree	3	51	6%
strongly disagree	0	51	0%
<u>TP used to assist primary care providers develop treatment plans</u>			
strongly agree	11	51	22%
agree	32	51	63%
no opinion	7	51	14%
disagree	1	51	2%
strongly disagree	0	51	0%
<u>TP used to educate/train primary care providers</u>			
strongly agree	13	51	25%
agree	31	51	61%
no opinion	7	51	14%
disagree	0	51	0%
strongly disagree	0	51	0%
<u>TP used to deliver care to patients in home communities</u>			
strongly agree	7	51	14%
agree	29	51	57%
no opinion	9	51	18%
disagree	6	51	12%
strongly disagree	0	51	0%
<u>TP used to conduct on-going individual therapy.</u>			
strongly agree	3	51	6%
agree	20	51	39%
no opinion	8	51	16%
disagree	16	51	31%
strongly disagree	4	51	8%
<u>TP used to conduct on-going group and family therapy</u>			
strongly agree	1	51	2%

Final Report: DOD Cooperative Agreement – Telepsychiatry

agree	13	51	25%
no opinion	15	51	29%
disagree	16	51	31%
strongly disagree	6	51	12%
Current telemed/telepsych programs?	29	46	63%
Telemed/telepsych technology	22	46	48%
Facsimile	35	46	76%
Email	35	46	76%
Computer based store and forward	20	46	43%
Video teleconferencing (POTS)	21	46	46%
Video teleconferencing (128)	16	46	35%
Video teleconferencing (384)	17	46	37%
Video teleconferencing (>384)	9	46	20%
Internet/WWW	33	46	72%
Currently conducting clinical telemed	17	46	37%
Currently conducting clinical telepsych	6	46	13%
Currently conducting non-clinical telemed	23	46	50%
Planning telemed/telepsych deployment	18	46	39%
Planning telemed/telepsych applications	19	46	41%
Planning non-clinical telemed applications	22	46	48%

Appendix 12 Mental Health Wrap-Around Demonstration Project Notice

Federal Register: July 3, 1997 (Volume 62, Number 128)

Page 36052-36053

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

DOCID:fr03jy97-48

DEPARTMENT OF DEFENSE

Mental Health Wrap-Around Demonstration Project

AGENCY: Office of the Secretary, DOD.

ACTION: Notice of demonstration project.

SUMMARY: This notice is to advise interested parties of a demonstration project (an amendment to the managed care support contract in regions 7 and 8), in which DOD will enroll a certain number of significantly emotionally disturbed children in TRICARE Regions 7 and 8 into a Mental Health Wraparound demonstration project. In order to be eligible for this project, children must be between the ages of 4 and 16 at the time of enrollment, have a serious emotional disturbance that is generally regarded as amenable to treatment, and, at the time of referral, require at least residential level of care, utilizing Health Management Strategies International, Inc. (HMSI) criteria, or are preparing for discharge from a residential or inpatient facility and are at high risk for recidivism. Additionally, a current DSM IV diagnosis is required. Children and adolescents who have a DSM IV diagnosis which is not generally regarded as either serious and/or amendable to treatment are not eligible for this demonstration. Parental consent is a necessary prerequisite to being enrolled in the demonstration.

The purpose of this demonstration is to determine if: wraparound services provided through comprehensive and continued management of care for child and adolescent mental health patients: (1) Enables shorter inpatient stays and reduces recidivism for inpatient treatment and, (2) reduce costs of inpatient psychiatric and residential care. The contractor shall share financial risk by accepting as a maximum annual payment for such services a case rate reimbursement not in excess of the amount of the annual standard CHAMPUS residential treatment benefit payable (as determined in accordance with section 8.1 of chapter 3 of volume II of the CHAMPUS policy manual). All participants enrolled in this project will be considered as TRICARE Prime enrollees for the purpose of applicable co-pays.

Traditionally, mental health services to children and adolescents have constituted a large portion of CHAMPUS reimbursement costs for DOD. The most expensive form of these services has been the long term residential treatment of children. The efficacy of this treatment modality compared to other emerging less traditional programs has not been assessed sufficiently to determine if it is the most appropriate in terms of patient outcomes and costs. These services have been generally supported through a fee for service or per diem basis. With the transition to managed care principles and practices in DOD, attempts to control costs while maintaining or improving the quality of medical care provided to our

beneficiaries has driven DOD to question the traditional mental health delivery systems.

Although the standard CHAMPUS mental health benefit is generous as compared to industry standards, non-institutional benefits currently offered are conservative. They may not lend themselves to well to innovative, managed care efforts which try to effectively treat patients in the least restrictive and most cost effective health care settings. Local, supportive, and individualized services based on the specific needs of the emotionally disturbed child or adolescent are thought to lead to greater improvement in outcomes and relationships with other family members, and in less need for institutional care. The demonstration will provide residential and wraparound services, including nontraditional mental health services that will assist the child to be maintained in the least-restrictive and least-costly setting. The demonstration will offer benefits not currently available under CHAMPUS reimbursement; specifically, alternative living arrangements (therapeutic foster care; therapeutic group living; brief, time-limited respite services in a residential setting; and crisis stabilization in a residential setting), and psychiatric home health care.

The contractor shall ensure a network of facilities is available to service the participants in the demonstration. This shall be a community-based program, utilizing established network and local resources. No mental health services shall be provided which are directly related to custodial care or determined to be primarily educational. All mental health providers used in this demonstration will be CHAMPUS authorized. Providers of unique, CHAMPUS excluded benefits must meet national/local licensing standards and/or credentialing mandates, (i.e. foster care/day care providers).

Upon initial evaluation at the comprehensive treatment facility, each beneficiary in the demonstration project, will be afforded the services of a case manager, who will coordinate and monitor all services provided by each and every member of the client's treatment team. Case managers will, beyond case coordination, have the latitude to make implementation decisions about the provisions of all unique mental health services.

A Clinical Management Committee will be established for the purpose of overseeing the quality of the clinical programs included in this demonstration project. The Clinical Management Committee will include multidisciplinary members.

Portability of like services within regional boundaries may also threaten the efficacy of mental health treatment for DOD beneficiaries in this age group. The continuation of support for these children regardless of their location within the regional boundaries will be an important part of this demonstration. This seamless continuum of care offered to these children will contribute to their recovery with the most effective use of available resources. The demonstration will ensure that wraparound services will continue to be provided to an enrolled child who moves to another location within TRICARE Regions 7/8 during the period of the demonstration.

The demonstration project will be evaluated using predetermined outcome oriented treatment objectives. The evaluation will assess the feasibility of implementing the program throughout the military health service system. DOD will conduct this demonstration for a period of at least two years from November 1, 1997, through September 30, 1999. This demonstration project is being conducted under the authority of

Final Report: DOD Cooperative Agreement – Telepsychiatry

10 U.S.C. 1092 and section 716 of the National Defense Authorization Act for Fiscal Year 1996 (Public L. 104-106).

EFFECTIVE DATE: November 1, 1997.

FOR FURTHER INFORMATION CONTACT: Ms. Marion Gosnell or Dr. John Sentell, Office of the Assistant Secretary of Defense (Health Affairs), telephone (703) 697-8975.

Dated: June 27, 1997.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

FR Doc. 97-17457 Filed 7-2-97; 8:45 am

BILLING CODE 5000-04-M

Appendix 13 Bibliography

Reid, J. (1998, April). Telepsychiatry in the Department of Defense: Opportunities and Challenges. Presentation at the American Telemedicine Association Third Annual Conference, Orlando, FL.

Appendix 14 List of Personnel Receiving Pay from this Effort

Jim Reid, PA-C – former Principal Investigator

Flynn O'Malley, Ph.D. – Principal Investigator, Director, Menninger Behavioral Health Network

Taylor Porter, MD – Staff Psychiatrist

Charles Terry – DOD Marketing Representative

Jack Allen - Administrator

Anita Crum – Center for Telepsychiatry Staff

Dawn Bradley – Center for Telepsychiatry Staff